

## **Plan of Development**



**Docket No. CP09-54-000**

**June 2010**



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## List of Abbreviations and Acronyms

ACHP	Advisory Council on Historic Preservation
AML	Appropriate Management Level
BA	biological assessment
BLM	Bureau of Land Management
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CWA	Clean Water Act
CWD	Coarse Woody Debris
DEIS	draft environmental impact statement
DBH	diameter at breast height
USDOT	United States Department of Transportation
EIS	environmental impact statement
ESA	Endangered Species Act of 1973
FERC	Federal Energy Regulatory Commission
HDD	horizontal directional drill
HMA	herd management area
HP	horsepower
ICS	Incident Command System
ISO	International Standards Organization
KFRA	Klamath Falls Resource Area
KOP	Key Observation Points
MLV	mainline valve
MP	milepost
NDE	non-destructive evaluation
NDT	non-destructive test
NEPA	National Environmental Policy Act
NWR	National Wildlife Refuge
POD	Plan of Development
Project	Ruby Pipeline Project
Reclamation	Bureau of Reclamation
ROD	Record of Decision
ROW	right-of-way
Ruby	Ruby Pipeline, LLC
Ruby's Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
Ruby's Procedures	Wetland and Waterbody Construction and Mitigation Procedures
SCADA	supervisory control and data acquisition
SHPO	State Historic Preservation Office

SMS	Scenery Management System
SUP	Special Use Permit
TUP	Temporary Use Permit
USACE	U.S. Army Corps of Engineers
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
VRM	Visual Resource Management

# 1 Project Summary

The Ruby Pipeline Project (Project), proposed by Ruby Pipeline, LLC (Ruby), is composed of approximately 675.2 miles of 42-inch diameter natural gas pipeline, along with associated compression and measurement facilities, located between Opal, Wyoming and Malin, Oregon. The Project would include an approximate 2.6-mile lateral, the PG&E Lateral, to be constructed in Klamath County, Oregon. As proposed, the Project would have a design capacity of approximately 1.5 million Dekatherms per day, depending on final subscriptions. The Project's rights-of-way (ROWs) would cross four states: Wyoming, Utah, Nevada, and Oregon. In addition to the existing King Compressor Station at Opal, Wyoming, Ruby proposes to install four new compressor stations for the Project: one located near the Opal Hub in Wyoming, one in western Utah, one near the mid-point of the Project north of Elko, Nevada, and one northwest of Winnemucca, Nevada.



## 2 Purpose and Need

The primary customer base for the proposed Ruby Project consists of two groups: (1) end users in northern California, Nevada, and the Pacific Northwest, and (2) Rockies natural gas producers. Although very recent economic indicators now suggest slower projected economic growth and concurrent business and electric generation development, there is and will be an increasing long-term demand for natural gas in the Project area. Combined with increasing consumer demand, end-users in northern California, Nevada, and the Pacific Northwest are facing declining availability of supplies from a major traditional supplier, Canada. Consequently, even if gas demand slows in the near term, the natural gas supplies originating from Canada must be replaced. The Federal Energy Regulatory Commission (FERC) has jurisdiction to determine if Ruby's proposed pipeline is needed and if so, the conditions under which it can be built. FERC has determined that the facilities proposed in Ruby's application under NGA Section 7(c) are required by the public convenience and necessity subject to resolution of the associated environmental issues (see the Preliminary Determination on Non-Environmental Issues in Docket No. CP09-54 issued September 4, 2009). The Bureau of Land Management (BLM) is, therefore, requiring this Plan of Development (POD) to specify the terms under which a ROW across federal lands is to be granted for the Ruby Pipeline.



### 3 Plan of Development

The POD has been prepared to identify construction plans and specifications, which include federal land management agencies' stipulations, construction procedures, environmental requirements, site-specific and Project plans, and mitigation measures that would be implemented by Ruby.

The POD is intended to be appended to the BLM ROW Grant. The POD describes the processes and procedures that would be used to comply with the environment requirements of the BLM, the Federal Energy Regulatory Commission (FERC), and other federal, state, and local agencies.

Federal lands crossed by the Project route include lands managed by the BLM through field offices located in Kemmerer, Wyoming; Salt Lake, Utah; Elko and Winnemucca, Nevada; Cedarville, California (the Project lands are located in Nevada but managed by the Surprise Field Office); and Lakeview and Klamath Falls, Oregon. The Project would also cross lands managed by the U.S. Forest Service (USFS) in the Uinta-Wasatch-Cache National Forest in Utah and the Fremont-Winema National Forest and Bureau of Reclamation (Reclamation) in Oregon.

During the course of preparing for and constructing the Project, changes to the POD may occur. The POD and its appendices would serve as the Project's reference for new or amended permits, approvals, clearances, and plans that may be issued during construction. The POD appendices contain specific site information and mitigation, whereas the main POD document addresses the overall Project guidelines. Unless otherwise specified by the landowner or land management agency, specifications in the POD would be implemented along the entire length of the Project as a general construction document; for more site-specific details and mitigation, please refer to the appropriate appended plans.

The following items are appended to the POD:

- Construction Typicals (Appendix A);
- Waste and Spill Management Specifications (Appendix B);
- Hydrostatic Testing and Discharge Plan (Appendix C);
- Upland Erosion Control, Revegetation, and Maintenance Plan (Ruby's Plan) (Appendix D);
- Restoration and Revegetation Plans (Appendix E);

- Wetland and Waterbody Construction and Mitigation Procedures (Ruby's Procedures) (Appendix F);
- Major Waterbody Crossing Plans (Appendix G);
- Noxious and Invasive Weed Control Plan (Appendix H);
- Biological Resources Conservation Measures Plan (Appendix I);
- Unanticipated Discoveries Plan for Cultural Resources (Appendix J);
- Unanticipated Discoveries Plan for Paleontological Resources (Appendix K);
- Fire Prevention and Suppression Plan (Appendix L);
- Blasting Plan (Appendix M);
- Fugitive Dust Control Plan (Appendix N);
- Traffic and Transportation Management Plan (Appendix O);
- Visual Resources (Appendix P);
- Wetland Mitigation Plan (Appendix Q);
- Groundwater Monitoring Plan (Appendix R);
- Greater Sage-grouse and Pygmy Rabbit Conservation Measures Plan (Appendix S);
- Permit Stipulations (Appendix T); and
- Environmental Compliance Monitoring Plan (Appendix U).

### **3.1 Relationship to Other Environmental Documents**

The POD was developed from the environmental analysis conducted through agency consultation beginning in first quarter 2008 and the National Environmental Policy Act (NEPA) compliance process. This analysis contributed measures for avoidance, minimization, and mitigation of environmental impacts resulting from construction of the Project facilities. The POD appendices incorporate regulatory approvals, plans, permits, maps, and other authorizations that involve environmental requirements and serve as the mechanism to implement FERC and BLM requirements identified during agency consultation regarding lands under federal jurisdiction.

### **3.2 Federal and State Agency Involvement**

The Project is under the jurisdiction of FERC, the lead agency for the Project. FERC is responsible for the preparation of the Project's environmental impact statement (EIS) in compliance with the Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 Code of Federal Regulations [CFR] Parts 1500-1508), and FERC's NEPA implementing regulations (18 CFR Part 380).

Cooperating federal agencies with jurisdictional authority over the Project include the BLM, U.S. Fish and Wildlife Service (USFWS), Reclamation, USFS, and the U.S. Army Corps of Engineers (USACE). As cooperating agencies, they could, after independent review, adopt the FERC EIS or conduct their own environmental analyses to satisfy their responsibilities under NEPA for their applicable Project authorizations.

The BLM issues ROW grants for natural gas pipelines under the authority of Section 185(f) of the Mineral Leasing Act of 1920, as amended, through issuance of a Record of Decision (ROD). The ROW grant application for this Project is subject to standard approval procedures, as outlined in 43 CFR part 2880. BLM would need to obtain the concurrence of the USFS, USFWS, and Reclamation, respectively, before issuing a ROW grant for this Project that involves lands managed by those agencies (43 CFR § 2884.26). The USFWS would have to issue its own special use permits for access road use in the Sheldon National Wildlife Refuge (NWR).

The USACE, USFWS, State Historic Preservation Offices (SHPOs), and other state and local agencies also have regulatory authority over the Project. The USACE has regulatory authority under Section 404 of the Clean Water Act (CWA) for the protection of waters of the U.S., including wetlands, impacted by the Project. Section 404 of the CWA regulates the discharge of dredged material, placement of fill material, or excavation within waters of the U.S. and authorizes the USACE to issue individual or nationwide permits for projects.

FERC, in consultation with the USFWS, is the lead federal agency responsible for compliance with Sections 7(a)(2) and 7(c) of the Endangered Species Act (ESA) (16 U.S.C. §§ 1536(a)(2), 1536(c)). FERC will prepare a Biological Assessment (BA) consistent with the requirements of 50 CFR § 402.12(f). The BA will identify conservation measures to avoid or minimize any adverse effects the Project may have on federally listed species and their critical habitat.

FERC, in consultation with the SHPOs, is also responsible for compliance with Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f). Section 106, and its implementing regulations (36 CFR Part 800) promulgated by the Advisory Council on Historic Preservation (ACHP), require federal agencies to take into account the effects of federal undertakings on historic properties and to afford the ACHP an opportunity to comment on such undertakings. The Section 106 regulations also require federal agencies with responsibility for an undertaking to consult with the relevant SHPOs, federal land management agencies, federally recognized Native American tribes, representatives of local government, and other potentially interested parties (as defined

by 36 CFR § 800.2(c)(5)), and to provide appropriate mechanisms for public participation, in the review of that undertaking.

## 4 Project Description

### 4.1 Description of Proposed Facilities

Ruby proposes to utilize a nominal 115-foot-wide construction ROW for installation of the 42-inch-diameter pipeline (mainline and lateral)<sup>1</sup>. This ROW width would accommodate large equipment, pipe stringing and set up, welding, the trench, and the temporary storage of topsoil and trench spoil. The construction area for this Project includes the construction ROW described above and acreages associated with aboveground facilities, including access roads and additional temporary workspace. The Project would result in impacts to a total of 4,249.9 acres within a permanent (operational) ROW and an additional 12,579.8 acres of temporary use (construction) disturbance. Please see Table 4.1-6, Vegetation Communities Affected by Construction and Operation of the Ruby Pipeline Project, at the end of this section.

The equipment required for construction of a 42-inch-diameter pipeline includes numerous large trenchers, trackhoes, sidebooms, and other tractors in each construction spread. Ruby also plans to use mechanized welding for the majority of the Project. Mechanized welding operations are conducted in portable shelters, commonly referred to as “sheds.” The standard width of these sheds is 10 feet, and they are moved by sidebooms in a leapfrog manner during mainline welding operations. Depending on the sideboom used, movement of the sheds could require up to 36 feet of width. Depending on the type of trench excavation equipment used, the ditch width would vary from five to 15 feet or wider in some soils. The trench would be roughly seven feet or greater in depth, depending on site-specific factors, such as topography, and the crossing of existing utilities and underground infrastructure, such as drain tiles.

Pursuant to U.S. Department of Transportation (DOT) requirements, the pipeline would have a minimum of 36 inches of cover from the top of the pipe to the natural ground surface in normal soil conditions. Additional depth of cover will be needed on sections of the pipeline built to the DOT’s 0.8 design factor standards and to address landowner concerns (e.g., on agricultural lands). Landowner concerns would be identified during

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<sup>1</sup> For purposes of the POD, Ruby is using the same terminology as the FEIS for ROW widths to be consistent. There is a terminology difference among the Federal agencies. FERC refers to the construction ROW as the 115-foot-wide ROW and the permanent ROW as the 50-foot-wide permanent ROW. Ruby is requesting a 50-foot-wide ROW from BLM and generally requires an additional 65-foot temporary use permit (TUP). The TUP could decrease or increase, depending on the sensitivity of the area or to accommodate for construction constraints.

the ROW negotiation process. The amount of spoil generated from a trench of this size typically requires 20 to 25 feet of the ROW width for storage on the spoil side within the 115-foot-wide ROW. Ruby has committed to utilizing the ditch-plus-spoil-side topsoiling method for the entire length of the ROW (see Appendix A, Construction Typical for a detailed drawing), with certain exceptions as described in section 5.1.3.

#### 4.1.1 Pipeline Facilities

The Project consists of the following facilities:

- Approximately 675.2 miles of 42-inch-diameter natural gas mainline pipeline,
- Approximately 2.6 miles of 42-inch-diameter natural gas pipeline lateral,
- Eight interconnects located within four measurement facilities,
- Forty-four mainline valves, and
- Four compressor stations.

**Table 4.1-1 Ruby Pipeline Facilities**

Facility	Pipeline Diameter and Type	County	State	Milepost Range*	Approximate Length (miles)
Line No. 300A	42" Mainline	Lincoln	Wyoming	MP0.0–MP21.1	21.1
	42" Mainline	Uinta	Wyoming	MP21.1–MP48.1	27.0
				<b>Subtotal WY</b>	<b>48.1</b>
Line No. 300A	42" Mainline	Rich	Utah	MP48.1–MP73.1	25.0
	42" Mainline	Cache	Utah	MP73.1–MP101.0	27.9
	42" Mainline	Box Elder	Utah	MP101.0–MP230.6	129.6
				<b>Subtotal UT</b>	<b>182.5</b>
Line No. 300A	42" Mainline	Elko	Nevada	MP230.6–MP R396.7	166.1
	42" Mainline	Humboldt	Nevada	MP R396.7–MP536.0	139.3
	42" Mainline	Washoe	Nevada	MP536.0–MP588.2	52.2
				<b>Subtotal NV</b>	<b>357.6</b>
Line No. 300A	42" Mainline	Lake	Oregon	MP588.2–MP R647.3	59.1
	42" Mainline	Klamath	Oregon	MP R647.3–MP672.6	25.3
				<b>Subtotal OR</b>	<b>84.4</b>
<b>Subtotal Mainline</b>					<b>672.6</b>
Line No. 301A	42" Lateral	Klamath	Oregon	0.0–2.6	2.6
				<b>Grand Total</b>	<b>675.2</b>

\*Mileage calculated for Ruby Pipeline as of 17 July 2009

## **4.1.2 Aboveground Facilities**

### **4.1.2.1 Compressor Stations**

The design for the Project requires the construction of four compressor stations. The project will also utilize the King compressor station, an existing compressor station located in Wyoming. The first station, the Roberson Creek Compressor Station, would be located near the existing Opal Hub in Lincoln County, Wyoming. The quarter-point station, the Wildcat Hills Compressor Station, would be located in western Box Elder County, Utah. The mid-point station, the Wieland Flat Compressor Station, would be located north of the city of Elko in Elko County, Nevada. The three-quarter point station, the Desert Valley Compressor Station, would be located in Humboldt County, northwest of Winnemucca, Nevada.

The Roberson Creek Compressor Station would utilize three electric drive units. Each of these units has a 23,000 horsepower (HP) [International Standards Organization (ISO)] rating. In total, the Roberson Creek Compressor Station would use up to 69,000 HP (ISO). A new transmission line will be constructed by Rocky Mountain Power to service this compressor station. Rocky Mountain Power will apply for an ROW grant from the BLM, but the impacts of the transmission line are described in the FERC final EIS.

The Wildcat Hills Compressor Station would consist of two Solar Mars 100 gas turbine-centrifugal compressor units. In total, this station would have available 28,668 HP (ISO). Under site conditions, this station would utilize 16,787 HP. For electric service Ruby will access an existing power line located in close proximity to the proposed plant.

The Wieland Flat Compressor Station would consist of two Solar Titan 130 gas turbine-centrifugal compressor units. In total, this station would have available 39,662 HP (ISO). Under site conditions, this station would utilize 27,004 HP. For electric service, Ruby will access an existing power line located in close proximity to the proposed plant.

The Desert Valley Compressor Station would consist of one Solar Titan 130 gas turbine-centrifugal compressor unit. In total, this station would have available 19,831 HP (ISO). Under site conditions, this station would utilize 9,090 HP. For electrical service, Harney Electric will construct a distribution line to this compressor station. Harney Electric will apply to BLM for a ROW grant and construct the distribution line. The impacts of this distribution line are described in the FERC final EIS.

#### 4.1.2.2 Measurement Facilities

Ruby is proposing to install eight interconnects (i.e., receipt and/or delivery points) within four separate measurement facilities. The first measurement facility would be installed within Colorado Interstate Gas Company's King Compressor Station. The second measurement facility would be installed within the Roberson Creek Compressor Station. The remaining two measurement facilities would be installed within their own 500-by-500-foot sites. These plans show temporary and permanent acreage required for construction at the facility locations. The facilities and associated surface disturbance are detailed in Table 4.1-2, below.

**Table 4.1-2 Ruby Aboveground Jurisdictional Facilities**

Facility	Facility Description	Milepost	County	State	Land Owner-ship	Permanent Surface Disturbance (acres)
Measurement Facility 1	King Compressor Station	0	Lincoln	WY	BLM	13.6
Compressor Station Measurement Facility 2	Roberson Creek Station Two Inter-connects	5.7	Lincoln	WY	BLM	30.8
Compressor Station Site	Wildcat Hills Station	172.5	Box Elder	UT	State of Utah & BLM	29.3
Compressor Station Site	Wieland Flat Station	330.3	Elko	NV	Private	25.3
Measurement Facility 3	Opal Valley Meter Station	437.4	Humboldt	NV	Private	5.7
Compressor Station Site	Desert Valley Station	476.4	Humboldt	NV	BLM	25.3
Measurement Facility 4	Tule Lake Valley Measurement Station	672.6	Klamath	OR	Private	12.2
Measurement Facility 5	Malin Measurement Station	675.2	Klamath	OR	Private	6.5
<b>Total Disturbance</b>						<b>148.7</b>

#### 4.1.3 Access Roads

Ruby would use existing public and private roads to access the construction corridor and staging areas. Ruby anticipates that five new access roads would be constructed up to 30 feet wide. The length of three of the roads in the Fremont Winema NF, would be 0.09 mile, 0.18 mile, and 0.35 mile, totaling 0.62 mile of new roads for ROW clearing. At milepost R109.0 a new road is needed to gain access to the mainline valve. This road would be about 0.33 mile long. Additionally, a 1,800-foot realignment of the

Summit Lake/Badger Mountain Road on the Sheldon NWR would be required to avoid a wild horse vegetation study site and spring. The USFWS will permit the new road construction at Summit Lake Badger Mountain Road in the Sheldon NWR as part of the Special Use Permit (SUP) for the Project. Currently, there are no other plans for construction of new access roads. Access to aboveground facilities would utilize existing access roads or the pipeline ROW. If Ruby determines that additional new access roads are necessary, Ruby would complete the required analysis and secure the necessary approvals prior to use.

Ruby intends to use many existing access roads in their current condition. However, some access roads may require improvements during construction, Ruby generally would improve roads by grading, filling/gravelling, and/or widening them to no more than 30 feet. The proper surveys (as needed), authorizations, and clearances would be obtained prior to grading. Following construction, Ruby would restore all new or improved access roads to their original status (e.g. two-track) unless the landowner or land management agency requests otherwise in writing, except for grading and/or graveling of existing roads with similar surfaces and replacement of existing culverts. Restoration would include removal of fill material and gravel, soil ripping to loosen compacted soils, grading to blend in with the terrain, and seeding with an approved seed mix adapted to local soils and vegetation types. For details regarding reclamation of access roads used during construction, see Restoration and Revegetation Plans, Appendix E.

Ruby would use existing roads for post-construction maintenance activities.

#### **4.1.4 Temporary Workspace**

Ruby would require additional workspace beyond the 115-foot construction corridor in areas of difficult terrain, heavy timber, and significant surface rock for material storage (i.e., rock or timber) during construction. The Project also would require extra temporary workspace to facilitate construction adjacent to waterbody, road, and railroad crossings; topography constraints; and crossing of other buried utilities. Extra workspaces for staging areas would also be used to place pipe in reasonable proximity to the construction ROW prior to stringing that pipe along the ROW. Extra workspaces may also be required for staging of large mechanical equipment. These areas are defined on Ruby's alignment sheets and are summarized in Table 4.1-3 at the end of this section.

#### **4.1.5 Staging Areas**

Staging areas would be used after the receipt of the certificate approvals to place pipe in reasonable proximity to the Project ROW prior to stringing that pipe along the ROW.

Staging areas may also be required for staging of contractor large mechanical equipment. Table 4.1-3 identifies the staging areas that would be used by the Project during construction.

#### 4.1.6 Contractor Yards/ Pipe Storage Staging Yard

The Project includes 21 contractor construction/pipe storage staging yards that would be used to store materials associated with pipeline construction and park personal vehicles and construction equipment. Table 4.1-4 shows the land requirements for contractor construction/pipe storage staging yards. Total acreage of temporary surface disturbance would be 884.1 acres. In addition, there would be two temporary housing facilities, the Vya Construction Camp in Vya, Nevada, and the Lakeview Temporary Housing Facility in Lakeview, Oregon.

**Table 4.1-4 Land Requirements for Contractor Construction / Pipe Storage Staging Yards**

<b>Contractor Construction/Pipe Yards</b>	<b>County</b>	<b>State</b>	<b>Section/Township/Range</b>	<b>Sheet Number</b>	<b>MP</b>	<b>Temporary Construction (acres)</b>
Glenco Jct Pipe Storage Staging Yard	Lincoln	WY	S7/8, T20N, R116W	4	14.8	78.2
Evanston Contractor Construction Yard	Uinta	WY	S30, T16N, R120W	8B, 9B	42.2	32.2
Sage Jct Pipe Storage Staging Yard	Lincoln	WY	S8/7, T21N, R119W	8D	44.9	29.9
Hyrum Contractor Construction Yard	Cache	UT	S26, T10N, R1E	17	90.1	23.2
Bear River Contractor Construction Yard	Box Elder	UT	S24, T10N, R3W	19, 20	115.4	36.3
Penrose Pipe Storage Staging Yard	Box Elder	UT	S26, T10N, R4W	21	122.8	56.4
Highway 93 Pipe Storage Staging Yard	Elko	NV	S29, T41N, R64E	45, 46	270.2	42
Wells Pipe Storage Staging Yard	Elko	NV	S11, T37N, R62E	48B	289.6	95.1
Elko Contractor Construction Yard	Elko	NV	S8, T34N, R55E	58D	333.7	34.4
Maggie Creek Pipe Storage Staging Yard	Elko	NV	S1, T38N, R52E	60	344.8	50.5

**Table 4.1-4 Land Requirements for Contractor Construction / Pipe Storage Staging Yards**

<b>Contractor Construction/Pipe Yards</b>	<b>County</b>	<b>State</b>	<b>Section/Township/Range</b>	<b>Sheet Number</b>	<b>MP</b>	<b>Temporary Construction (acres)</b>
Carlin Pipe Storage Staging Yard	Elko	NV	S14, T33N, R52E	60F	345.8	82.9
Midas Road Pipe Storage Staging Yard	Humboldt	NV	S17, T37N, R42E	71	410.6	15.6
Winnemucca Contractor Construction Yard	Humboldt	NV	S21/22, T36N, R38E	75B	425.0	78.6
Highway 95 Contractor Construction Yard	Humboldt	NV	S9/10, T37N, R38E	75A	428.5	52.7
Sod House Pipe Storage Staging Yard	Humboldt	NV	S26/27, T41N, R35E	80	462.9	35.8
Leonard Creek Pipe Storage Staging Yard	Humboldt	NV	S14, T42N, R31E	84	488.0	27.9
Surprise Valley Pipe Storage Staging Yard	Washoe	NV	S3, T42N, R21E / S34, T43N, R21E	94	551.3	30
Lakeview Contractor Construction Yard	Lake	OR	S10, T39S, R20E	105	610.8	20.2
Lakeview 2 Pipe Storage Staging Yard	Lake	OR	S21/22, T39S, R20E	105	611.4	35.5
Klamath Contractor Construction Yard	Klamath	OR	S33, T38S, R9E	114E	672.6	13.8
Merrill 2 Pipe Storage Staging Yard	Klamath	OR	S12, T41S, R10E	114B	672.6	12.9
<b>Total Acreage</b>						<b>884.1</b>

**4.1.7 Mainline Valves**

Forty-four mainline valves would be located along the pipeline, as described in Table 4.1-5. Eight-foot-high chained-link fence enclosures measuring 50 by 75 feet would be installed around each valve assembly that is not enclosed within a measurement facility, launcher/receiver trap site, or compressor station. The fenced enclosures would be contained within the limits of the permanent ROW. Total acreage of permanent surface disturbance would be 22.64 acres.

**Table 4.1-5 Ruby Aboveground Auxiliary Facilities**

<b>Facility Description</b>	<b>Milepost</b>	<b>County</b>	<b>State</b>	<b>Ownership</b>	<b>Permanent Dimension (feet)</b>	<b>Permanent Surface Disturbance (acres)</b>
MLV 1** Launcher (to be installed within the existing CIG King Compressor Station site)	0.1	Lincoln	Wyoming	BLM	500 x 500	5.7
MLV 2** Launcher / Receiver (to be installed at the Roberson Creek Compressor Station)	5.7	Lincoln	Wyoming	BLM	125 x 320	0.92
MLV 3	21.1	Uinta	Wyoming	Private	50 x 75	0.09
MLV 4	39.5	Uinta	Wyoming	BLM	50 x 75	0.09
MLV 5	55.4	Rich	Utah	Private	50 x 75	0.09
MLV 6	73.3	Cache	Utah	Private	50 x 75	0.09
MLV 7	92.1	Cache	Utah	State of Utah (DNR)	50 x 75	0.09
MLV 8 Launcher/ Receiver	R102.9	Box Elder	Utah	Private	125 x 320	0.92
MLV 9	109	Box Elder	Utah	Private	50 x 75	0.09
MLV 10	127.4	Box Elder	Utah	Private	50 x 75	0.09
MLV 11	144.6	Box Elder	Utah	Private	50 x 75	0.09
MLV 12	161.1	Box Elder	Utah	Private	50 x 75	0.09
MLV 13** Launcher / Receiver (to be installed at the Wildcat Hills Compressor Station)	172.5	Box Elder	Utah	State of Utah	125 x 320	0.92
MLV 14	190.6	Box Elder	Utah	BLM	50 x 75	0.09
MLV 15	206	Box Elder	Utah	State of Utah	50 x 75	0.09
MLV 16	222.3	Box Elder	Utah	BLM	50 x 75	0.09
MLV 17	239.1	Elko	Nevada	Private	50 x 75	0.09
MLV 18 Launcher/ Receiver	257.4	Elko	Nevada	BLM	125 x 320	0.92
MLV 19	275.9	Elko	Nevada	BLM	50 x 75	0.09
MLV 20	R292.7	Elko	Nevada	Private	50 x 75	0.09
MLV 21	311.1	Elko	Nevada	Private	50 x 75	0.09
MLV 22** Launcher / Receiver (to be installed at the Wieland Flat Compressor Station)	330.2	Elko	Nevada	Private	125 x 320	0.92
MLV 23	345.7	Elko	Nevada	Private	50 x 75	0.09
MLV 24	R364.2	Elko	Nevada	Private	50 x 75	0.09
MLV 25	R382.7	Elko	Nevada	Private	50 x 75	0.09
MLV 26 Launcher/ Receiver	R401.8	Humboldt	Nevada	BLM	125 x 320	0.92
MLV 27	421.1	Humboldt	Nevada	Private	50 x 75	0.09
MLV 28	437.4	Humboldt	Nevada	Private	50 x 75	0.09
MLV 29	456.9	Humboldt	Nevada	BLM	50 x 75	0.09

**Table 4.1-5 Ruby Aboveground Auxiliary Facilities**

<b>Facility Description</b>	<b>Milepost</b>	<b>County</b>	<b>State</b>	<b>Ownership</b>	<b>Permanent Dimension (feet)</b>	<b>Permanent Surface Disturbance (acres)</b>
MLV 30** Launcher / Receiver (to be installed at the Desert Valley Compressor Station)	476.4	Humboldt	Nevada	BLM	125 x 320	0.92
MLV 31	493.2	Humboldt	Nevada	BLM	50 x 75	0.09
MLV 32	509.8	Humboldt	Nevada	BLM	50 x 75	0.09
MLV 33 Launcher/ Receiver	528.8	Humboldt	Nevada	BLM	125 x 320	0.92
MLV 34	547.8	Washoe	Nevada	Private	50 x 75	0.09
MLV 35	567.2	Washoe	Nevada	BLM	75 x 100	0.17
MLV 36 Launcher/ Receiver	581.9	Washoe	Nevada	BLM	125 x 320	0.92
MLV 37	601.1	Lake	Oregon	BLM	50 x 75	0.09
MLV 38	614.2	Lake	Oregon	Private	50 x 75	0.09
MLV 39	627.9	Lake	Oregon	Private	50 x 75	0.09
MLV 40	643.1	Lake	Oregon	Forest Service	50 x 75	0.09
MLV 41	R659.3	Klamath	Oregon	BLM	50 x 75	0.09
MLV 42 Receiver Separation Facilities	R672.6	Klamath	Oregon	Private	500 x 500	5.7
MLV 301-1	Line No. 301- 0.0	Klamath	Oregon	Private	Included in MLV 42 Site	0
MLV 301-2	Line No. 301- 2.85	Klamath	Oregon	Private	50 x 75	0.09
<b>Total Disturbance</b>						<b>22.64</b>

Note: \*\*MLV acreage when at the compressor station is not an additional permanent impacts.

#### 4.1.8 Temporary Water Well Sites

Ruby would utilize temporary water well sites for hydrostatic testing and dust abatement. Water well sites would be obtained by Ruby in compliance with both federal and state regulations, as well as existing water rights. Wells will be abandoned upon completion of use by Ruby unless otherwise directed by the authorized officer or landowner. For Nevada BLM lands, Ruby will provide well location information to the BLM, so the BLM can determine if any of the wells should remain open for other future uses and users upon completion of use by Ruby. If the BLM determines that any of the wells should remain open, the BLM or other appropriate users will apply for and acquire the rights to use the well and water per the State of Nevada's requirements. If the Nevada BLM determines that any of the wells should not remain open, Ruby will abandon the wells not required for future uses in compliance with both federal and state regulations.

Well locations for hydrostatic testing are presented in Appendix C, Hydrostatic Test Plan, Table 2.1-1.

Well locations for dust abatement are presented in Appendix N, Fugitive Dust Control Plan, Table 2.1

## **4.2 Project Schedule and Workforce**

### **4.2.1 Construction Schedule**

Contingent on receipt of necessary authorizations, construction activities could commence within 30 days of issuance of a ROW grant in areas where weather permits and where there are no restrictions designated to protect sensitive species, species that are migrating, in-water work windows for fish, irrigation season restrictions, or cultural resources.

### **4.2.2 Project Workforce**

Ruby intends to utilize a total of eight to ten construction spreads/minispreads along the Project route, ranging 60 to 120 miles in length. The construction of the Project would require an average of 500 workers per the seven spreads, using 600 workers during peak construction times, totaling a maximum of approximately 4,800 workers for all pipeline spreads and compressor stations. The four compressor stations would require approximately 150 workers per station, employing 200 workers during peak construction times. The compressor stations would be located near Opal, Wyoming; western Utah; Elko, Nevada; and northwest of Winnemucca, Nevada.

## **4.3 Human Health and Safety**

A human health and safety program would be implemented during the construction and maintenance of the Ruby Project. Project employees will be instructed on waste collection and containment requirements, including incidental trash such as food wrappers.

### **4.3.1 Solid Waste Control**

These solid waste control provisions provide procedures for the removal and disposal of solid wastes (e.g., garbage, non-marketable timber, undergrowth, etc.)

#### **Definitions**

- “Waste,” as used herein, means all discarded matter, including, but not limited to, human waste, trash, garbage, refuse, oil and oil drums, petroleum products, equipment, ashes, equipment filters, welding rods and metal cuttings from end facing.

- “Vegetation” means vegetative material including marketable timber, non-marketable timber, understory, and ground cover.

#### Provisions

- All construction-generated waste would be removed or disposed of from the Project. If any waste is dumped on federal land, the material would be removed and the area restored.
- There would be no release of equipment crank case oil, etc., into streams or soil by any personnel (Appendix B, Waste and Spill Management Specifications).
- Ruby would follow a continuous (at least twice weekly) litter policing schedule on all roads associated with the Project.
- Garbage would be collected as it is generated and properly contained for disposal in an approved landfill operation.
- The construction sites would be kept free from accumulation of waste materials and rubbish resulting from construction activities as required for safety, appearance, and avoidance of fire hazards.
- Human waste would be collected in portable toilets. Portable toilets would be located at equipment staging and storage yards. The portable toilets would be emptied at an appropriate frequency and disposed of in an appropriate manner at state-approved sites.

### **4.3.2 Emergency Response**

The purpose of these emergency response provisions is to expedite the reporting of emergencies and needed follow-up measures and activities. As used herein, emergencies shall apply to personal injuries and property damage.

#### **4.3.2.1 Procedures**

Emergency procedures for wildfire protection are outlined in the Fire Prevention and Suppression Plan (Appendix L).

In case of personal injury, first aid treatment and procedures would be initiated to determine extent and nature of injury. If emergency medical services are required, Ruby would request ambulance service and other appropriate help.

Accidents involving property damage needing emergency measures shall be reported to a Ruby field office and the Project Leader of the construction spread. After notification, appropriate measures shall be implemented to prevent further damage.

A written report would be prepared by the personnel involved in the emergency, providing all pertinent information and copies would be provided to the Spread Superintendent. In case of personal injuries, accident forms would be filed with the appropriate authority having jurisdiction.

If construction begins during hunting seasons, construction workers will be notified of the dangers, and appropriate clothing may be provided.

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
0.3	Extra Workspace	Lincoln	Wyoming	Open Land	3.43
0.5	Extra Workspace	Lincoln	Wyoming	Developed	0.70
0.5	Extra Workspace	Lincoln	Wyoming	Open Land	0.16
0.5	Staging Area	Lincoln	Wyoming	Developed	4.13
0.5	Staging Area	Lincoln	Wyoming	Open Land	1.97
0.8	Extra Workspace	Lincoln	Wyoming	Agriculture	0.21
1.0	Extra Workspace	Lincoln	Wyoming	Agriculture	0.29
1.0	Extra Workspace	Lincoln	Wyoming	Forest	0.02
1.0	Extra Workspace	Lincoln	Wyoming	Wetland	0.06
1.1	Extra Workspace	Lincoln	Wyoming	Wetland	0.45
1.5	Extra Workspace	Lincoln	Wyoming	Agriculture	0.52
1.9	Extra Workspace	Lincoln	Wyoming	Open Land	7.93
2.0	Extra Workspace	Lincoln	Wyoming	Open Land	0.30
2.1	Extra Workspace	Lincoln	Wyoming	Open Land	0.37
2.2	Extra Workspace	Lincoln	Wyoming	Open Land	0.12
2.4	Extra Workspace	Lincoln	Wyoming	Open Land	2.94
2.6	Extra Workspace	Lincoln	Wyoming	Open Land	0.06
5.9	Extra Workspace	Lincoln	Wyoming	Open Land	0.98
5.9	Staging Area	Lincoln	Wyoming	Open Land	0.04
6.0	Extra Workspace	Lincoln	Wyoming	Open Land	0.02

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
6.0	Staging Area	Lincoln	Wyoming	Open Land	0.86
6.3	Extra Workspace	Lincoln	Wyoming	Open Land	1.29
8.7	Extra Workspace	Lincoln	Wyoming	Wetland	0.03
8.8	Extra Workspace	Lincoln	Wyoming	Open Land	1.04
8.8	Extra Workspace	Lincoln	Wyoming	Wetland	0.06
10.9	Extra Workspace	Lincoln	Wyoming	Open Land	0.55
11.7	Extra Workspace	Lincoln	Wyoming	Open Land	0.77
12.0	Extra Workspace	Lincoln	Wyoming	Open Land	0.78
12.3	Extra Workspace	Lincoln	Wyoming	Open Land	0.55
14.2	Extra Workspace	Lincoln	Wyoming	Open Land	0.83
14.9	Extra Workspace	Lincoln	Wyoming	Open Land	0.81
15.0	Extra Workspace	Lincoln	Wyoming	Open Land	0.27
15.0	Staging Area	Lincoln	Wyoming	Open Land	0.41
15.5	Extra Workspace	Lincoln	Wyoming	Open Land	0.55
15.6	Extra Workspace	Lincoln	Wyoming	Open Land	1.81
15.7	Extra Workspace	Lincoln	Wyoming	Open Land	1.64
17.8	Extra Workspace	Lincoln	Wyoming	Open Land	2.56
18.8	Extra Workspace	Lincoln	Wyoming	Open Land	2.20
18.8	Extra Workspace	Lincoln	Wyoming	Wetland	0.03
18.9	Extra Workspace	Lincoln	Wyoming	Open Land	0.04
19.5	Extra Workspace	Lincoln	Wyoming	Open Land	1.18
19.7	Extra Workspace	Lincoln	Wyoming	Open Land	0.21
		Uinta	Wyoming	Open Land	0.08
19.8	Extra Workspace	Uinta	Wyoming	Developed	0.34
19.8	Extra Workspace	Uinta	Wyoming	Forest	0.13
19.8	Extra Workspace	Uinta	Wyoming	Open Land	0.65
19.8	Staging Area	Uinta	Wyoming	Open Land	0.73

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
19.9	Extra Workspace	Uinta	Wyoming	Open Land	0.29
20.2	Extra Workspace	Uinta	Wyoming	Open Land	1.62
20.3	Extra Workspace	Uinta	Wyoming	Open Land	0.18
20.4	Extra Workspace	Uinta	Wyoming	Open Land	0.22
20.9	Extra Workspace	Uinta	Wyoming	Open Land	0.13
21.0	Extra Workspace	Uinta	Wyoming	Developed	0.79
21.0	Extra Workspace	Uinta	Wyoming	Open Land	0.76
21.1	Extra Workspace	Uinta	Wyoming	Open Land	0.46
22.2	Extra Workspace	Uinta	Wyoming	Open Land	0.37
23.8	Extra Workspace	Uinta	Wyoming	Forest	0.05
23.8	Extra Workspace	Uinta	Wyoming	Open Land	0.09
23.9	Extra Workspace	Uinta	Wyoming	Forest	0.15
23.9	Extra Workspace	Uinta	Wyoming	Open Land	0.12
26.0	Extra Workspace	Uinta	Wyoming	Open Land	0.20
26.1	Staging Area	Uinta	Wyoming	Open Land	1.29
26.3	Extra Workspace	Uinta	Wyoming	Open Land	6.47
27.2	Extra Workspace	Uinta	Wyoming	Open Land	0.62
27.3	Staging Area	Uinta	Wyoming	Open Land	3.50
28.4	Extra Workspace	Uinta	Wyoming	Open Land	0.09
28.8	Extra Workspace	Uinta	Wyoming	Open Land	11.71
29.1	Extra Workspace	Uinta	Wyoming	Open Land	0.05
29.2	Extra Workspace	Uinta	Wyoming	Open Land	0.32
29.3	Extra Workspace	Uinta	Wyoming	Open Land	0.17
29.8	Staging Area	Uinta	Wyoming	Open Land	0.92
33.7	Extra Workspace	Uinta	Wyoming	Open Land	1.04
33.8	Extra Workspace	Uinta	Wyoming	Open Land	1.06

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
33.9	Extra Workspace	Uinta	Wyoming	Open Land	0.02
34.9	Staging Area	Uinta	Wyoming	Open Land	0.92
35.3	Extra Workspace	Uinta	Wyoming	Open Land	0.04
35.4	Extra Workspace	Uinta	Wyoming	Open Land	0.88
35.5	Extra Workspace	Uinta	Wyoming	Open Land	0.45
35.6	Extra Workspace	Uinta	Wyoming	Open Land	3.71
35.7	Extra Workspace	Uinta	Wyoming	Open Land	0.42
35.8	Extra Workspace	Uinta	Wyoming	Open Land	0.78
35.9	Extra Workspace	Uinta	Wyoming	Open Land	0.75
36.0	Extra Workspace	Uinta	Wyoming	Open Land	0.05
36.1	Extra Workspace	Uinta	Wyoming	Open Land	0.96
36.2	Extra Workspace	Uinta	Wyoming	Forest	0.03
36.2	Extra Workspace	Uinta	Wyoming	Open Land	0.11
36.3	Extra Workspace	Uinta	Wyoming	Open Land	0.32
36.5	Extra Workspace	Uinta	Wyoming	Open Land	0.69
36.6	Extra Workspace	Uinta	Wyoming	Open Land	4.38
36.6	Extra Workspace	Uinta	Wyoming	Wetland	0.05
36.7	Extra Workspace	Uinta	Wyoming	Open Land	3.83
36.8	Extra Workspace	Uinta	Wyoming	Open Land	0.24
37.0	Extra Workspace	Uinta	Wyoming	Open Land	0.22
37.3	Extra Workspace	Uinta	Wyoming	Open Land	3.43
38.8	Extra Workspace	Uinta	Wyoming	Open Land	0.96
39.6	Extra Workspace	Uinta	Wyoming	Open Land	1.27
39.6	Staging Area	Uinta	Wyoming	Open Land	0.75
39.8	Extra Workspace	Uinta	Wyoming	Forest	0.10
39.8	Extra Workspace	Uinta	Wyoming	Open Land	0.34

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
39.9	Extra Workspace	Uinta	Wyoming	Forest	0.02
39.9	Extra Workspace	Uinta	Wyoming	Open Land	0.18
40.0	Extra Workspace	Uinta	Wyoming	Forest	0.48
40.1	Extra Workspace	Uinta	Wyoming	Open Land	0.62
40.2	Extra Workspace	Uinta	Wyoming	Forest	0.08
40.2	Extra Workspace	Uinta	Wyoming	Open Land	0.02
40.3	Extra Workspace	Uinta	Wyoming	Open Land	4.70
40.4	Extra Workspace	Uinta	Wyoming	Open Land	4.80
40.5	Extra Workspace	Uinta	Wyoming	Open Land	0.28
40.7	Extra Workspace	Uinta	Wyoming	Open Land	0.07
40.8	Extra Workspace	Uinta	Wyoming	Open Land	0.44
40.9	Extra Workspace	Uinta	Wyoming	Developed	0.13
41.3	Extra Workspace	Uinta	Wyoming	Developed	0.07
41.4	Extra Workspace	Uinta	Wyoming	Developed	0.11
41.4	Extra Workspace	Uinta	Wyoming	Open Land	0.36
42.0	Extra Workspace	Uinta	Wyoming	Developed	0.35
42.0	Extra Workspace	Uinta	Wyoming	Open Land	0.05
42.1	Extra Workspace	Uinta	Wyoming	Developed	0.31
42.1	Extra Workspace	Uinta	Wyoming	Open Land	1.58
42.4	Extra Workspace	Uinta	Wyoming	Open Land	0.06
42.4	Extra Workspace	Uinta	Wyoming	Wetland	0.03
42.5	Extra Workspace	Uinta	Wyoming	Open Land	1.92
43.4	Extra Workspace	Uinta	Wyoming	Open Land	2.19
43.5	Extra Workspace	Uinta	Wyoming	Open Land	0.06
44.6	Extra Workspace	Uinta	Wyoming	Forest	0.34

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
44.6	Extra Workspace	Uinta	Wyoming	Wetland	0.07
44.9	Extra Workspace	Uinta	Wyoming	Open Land	6.77
44.9	Extra Workspace	Uinta	Wyoming	Open Land	0.69
45.1	Extra Workspace	Uinta	Wyoming	Open Land	0.10
47.0	Extra Workspace	Uinta	Wyoming	Forest	0.05
47.6	Extra Workspace	Uinta	Wyoming	Open Land	4.78
47.7	Extra Workspace	Uinta	Wyoming	Open Land	6.36
48.0	Extra Workspace	Uinta	Wyoming	Open Land	1.73
48.2	Extra Workspace	Uinta	Wyoming	Open Land	0.20
48.4	Extra Workspace	Rich	Utah	Open Land	0.32
50.0	Staging Area	Rich	Utah	Open Land	0.92
50.6	Extra Workspace	Rich	Utah	Agriculture	0.92
50.8	Extra Workspace	Rich	Utah	Open Land	6.05
50.9	Extra Workspace	Rich	Utah	Open Land	0.13
52.1	Extra Workspace	Rich	Utah	Wetland	0.77
52.1	Extra Workspace	Rich	Utah	Agriculture	28.44
52.2	Extra Workspace	Rich	Utah	Agriculture	6.38
52.2	Extra Workspace	Rich	Utah	Wetland	0.24
52.2	Staging Area	Rich	Utah	Agriculture	11.79
52.3	Extra Workspace	Rich	Utah	Open Land	0.21
52.3	Extra Workspace	Rich		Wetland	0.41
52.3	Staging Area	Rich	Utah	Open Land	1.44
52.4	Extra Workspace	Rich	Utah	Agriculture	0.13
52.4	Extra Workspace	Rich	Utah	Open Land	0.51
52.6	Extra Workspace	Rich	Utah	Wetland	2.66
52.8	Extra Workspace	Rich	Utah	Forest	0.04

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
52.8	Extra Workspace	Rich	Utah	Wetland	0.90
52.9	Extra Workspace	Rich	Utah	Wetland	1.24
53.0	Extra Workspace	Rich	Utah	Wetland	1.74
53.1	Extra Workspace	Rich	Utah	Forest	0.09
53.1	Extra Workspace	Rich	Utah	Wetland	0.04
53.2	Extra Workspace	Rich	Utah	Agriculture	2.43
53.9	Extra Workspace	Rich	Utah	Agriculture	0.30
53.9	Extra Workspace	Rich	Utah	Developed	0.36
54.1	Extra Workspace	Rich	Utah	Agriculture	0.41
54.2	Extra Workspace	Rich	Utah	Agriculture	0.37
54.4	Extra Workspace	Rich	Utah	Agriculture	0.37
54.6	Extra Workspace	Rich	Utah	Agriculture	1.10
54.8	Extra Workspace	Rich	Utah	Agriculture	0.37
55.1	Staging Area	Rich	Utah	Open Land	0.92
56.6	Extra Workspace	Rich	Utah	Open Land	0.03
57.9	Extra Workspace	Rich	Utah	Open Land	0.91
58.1	Extra Workspace	Rich	Utah	Open Land	29.12
59.2	Extra Workspace	Rich	Utah	Open Land	0.01
60.2	Extra Workspace	Rich	Utah	Open Land	4.90
60.3	Extra Workspace	Rich	Utah	Open Land	4.90
60.6	Extra Workspace	Rich	Utah	Open Land	0.21
60.8	Extra Workspace	Rich	Utah	Forest	0.01
60.9	Extra Workspace	Rich	Utah	Agriculture	0.45
60.9	Extra Workspace	Rich	Utah	Open Land	0.08
61.0	Extra Workspace	Rich	Utah	Open Land	0.99
61.0	Staging Area	Rich	Utah	Agriculture	0.05

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
61.0	Staging Area	Rich	Utah	Open Land	4.26
61.1	Staging Area	Rich	Utah	Open Land	0.13
61.6	Extra Workspace	Rich	Utah	Open Land	0.49
63.4	Extra Workspace	Rich	Utah	Forest	0.26
63.6	Extra Workspace	Rich	Utah	Open Land	0.21
63.7	Extra Workspace	Rich	Utah	Open Land	0.34
63.8	Extra Workspace	Rich	Utah	Open Land	0.40
64.0	Extra Workspace	Rich	Utah	Open Land	1.34
64.1	Extra Workspace	Rich	Utah	Open Land	0.11
64.2	Extra Workspace	Rich	Utah	Open Land	0.10
64.3	Extra Workspace	Rich	Utah	Forest	0.04
64.5	Extra Workspace	Rich	Utah	Forest	0.18
64.6	Extra Workspace	Rich	Utah	Forest	0.00
64.7	Extra Workspace	Rich	Utah	Forest	0.34
64.9	Extra Workspace	Rich	Utah	Forest	0.82
65.1	Extra Workspace	Rich	Utah	Forest	0.20
65.4	Extra Workspace	Rich	Utah	Open Land	0.37
65.6	Extra Workspace	Rich	Utah	Open Land	0.42
65.7	Extra Workspace	Rich	Utah	Forest	8.97
65.7	Extra Workspace	Rich	Utah	Open Land	0.09
66.1	Extra Workspace	Rich	Utah	Forest	0.20
66.3	Extra Workspace	Rich	Utah	Forest	0.12
66.4	Extra Workspace	Rich	Utah	Forest	0.43
66.5	Extra Workspace	Rich	Utah	Forest	0.45
66.6	Extra Workspace	Rich	Utah	Forest	0.19
66.7	Extra Workspace	Rich	Utah	Forest	0.53

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
66.8	Extra Workspace	Rich	Utah	Forest	0.09
67.2	Extra Workspace	Rich	Utah	Forest	1.52
67.5	Extra Workspace	Rich	Utah	Forest	0.10
67.6	Extra Workspace	Rich	Utah	Forest	0.04
69.2	Staging Area	Rich	Utah	Open Land	6.18
69.3	Staging Area	Rich	Utah	Developed	0.53
69.3	Staging Area	Rich	Utah	Forest	0.07
69.3	Staging Area	Rich	Utah	Open Land	0.24
72.1	Extra Workspace	Rich	Utah	Forest	0.87
72.2	Extra Workspace	Rich	Utah	Open Land	0.32
72.4	Extra Workspace	Rich	Utah	Forest	3.49
72.4	Extra Workspace	Rich	Utah	Open Land	0.19
72.5	Extra Workspace	Rich	Utah	Forest	0.65
72.6	Extra Workspace	Rich	Utah	Forest	2.94
72.8	Extra Workspace	Rich	Utah	Forest	0.31
72.9	Extra Workspace	Cache	Utah	Forest	0.29
73.0	Extra Workspace	Cache	Utah	Forest	0.61
73.0	Extra Workspace	Cache	Utah	Open Land	0.29
73.1	Extra Workspace	Cache	Utah	Forest	0.95
73.1	Extra Workspace	Cache	Utah	Open Land	0.41
73.2	Extra Workspace	Cache	Utah	Forest	0.47
73.2	Extra Workspace	Cache	Utah	Open Land	0.50
73.3	Extra Workspace	Cache	Utah	Developed	0.45
73.3	Extra Workspace	Cache	Utah	Forest	0.04
73.3	Extra Workspace	Cache	Utah	Open Land	0.17
73.8	Extra Workspace	Cache	Utah	Forest	0.09
73.8	Extra Workspace	Cache	Utah	Open Land	0.18

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
73.9	Extra Workspace	Cache	Utah	Forest	0.37
73.9	Extra Workspace	Cache	Utah	Open Land	0.13
74.0	Staging Area	Cache	Utah	Open Land	0.92
74.2	Extra Workspace	Cache	Utah	Forest	0.19
74.2	Extra Workspace	Cache	Utah	Open Land	0.92
74.3	Extra Workspace	Cache	Utah	Forest	1.37
75.2	Extra Workspace	Cache	Utah	Forest	2.12
75.3	Extra Workspace	Cache	Utah	Forest	0.04
76.2	Extra Workspace	Cache	Utah	Developed	0.01
76.2	Extra Workspace	Cache	Utah	Open Land	0.14
76.3	Extra Workspace	Cache	Utah	Forest	0.16
76.3	Extra Workspace	Cache	Utah	Open Land	0.25
76.8	Extra Workspace	Cache	Utah	Open Land	0.13
76.9	Extra Workspace	Cache	Utah	Open Land	0.53
77.0	Extra Workspace	Cache	Utah	Forest	0.05
77.1	Extra Workspace	Cache	Utah	Forest	14.37
77.4	Extra Workspace	Cache	Utah	Forest	0.06
77.5	Extra Workspace	Cache	Utah	Open Land	0.29
77.8	Extra Workspace	Cache	Utah	Open Land	0.05
77.9	Extra Workspace	Cache	Utah	Developed	0.09
77.9	Extra Workspace	Cache	Utah	Forest	0.17
77.9	Extra Workspace	Cache	Utah	Open Land	0.09
78.0	Extra Workspace	Cache	Utah	Open Land	0.83
78.3	Extra Workspace	Cache	Utah	Open Land	0.32
78.4	Extra Workspace	Cache	Utah	Developed	0.44

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
78.4	Extra Workspace	Cache	Utah	Open Land	0.06
78.4	Staging Area	Cache	Utah	Developed	0.08
78.4	Staging Area	Cache	Utah	Open Land	0.67
80.0	Extra Workspace	Cache	Utah	Developed	0.01
80.1	Extra Workspace	Cache	Utah	Developed	0.12
80.2	Extra Workspace	Cache	Utah	Open Land	0.17
80.3	Extra Workspace	Cache	Utah	Developed	0.18
80.3	Extra Workspace	Cache	Utah	Open Land	0.00
80.4	Extra Workspace	Cache	Utah	Open Land	3.96
80.5	Extra Workspace	Cache	Utah	Open Land	3.85
80.6	Extra Workspace	Cache	Utah	Forest	0.33
80.7	Extra Workspace	Cache	Utah	Forest	0.16
80.8	Extra Workspace	Cache	Utah	Forest	0.51
81.0	Extra Workspace	Cache	Utah	Forest	0.07
81.5	Extra Workspace	Cache	Utah	Forest	0.26
81.5	Extra Workspace	Cache	Utah	Open Land	0.09
81.5	Extra Workspace	Cache	Utah	Wetland	0.08
81.7	Extra Workspace	Cache	Utah	Forest	11.30
81.8	Extra Workspace	Cache	Utah	Open Land	2.04
82.2	Extra Workspace	Cache	Utah	Open Land	0.27
83.1	Extra Workspace	Cache	Utah	Developed	0.00
83.2	Extra Workspace	Cache	Utah	Developed	0.18
83.3	Extra Workspace	Cache	Utah	Forest	0.18
83.3	Extra Workspace	Cache	Utah	Open Land	3.98
83.5	Extra Workspace	Cache	Utah	Developed	0.21
83.5	Extra Workspace	Cache	Utah	Open Land	0.05

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
84.0	Extra Workspace	Cache	Utah	Forest	0.16
84.0	Extra Workspace	Cache	Utah	Open Land	0.38
84.3	Extra Workspace	Cache	Utah	Forest	0.05
84.3	Extra Workspace	Cache	Utah	Open Land	0.49
84.4	Extra Workspace	Cache	Utah	Forest	1.27
84.5	Extra Workspace	Cache	Utah	Forest	0.19
84.5	Extra Workspace	Cache	Utah	Open Land	0.43
84.6	Extra Workspace	Cache	Utah	Forest	0.09
84.7	Extra Workspace	Cache	Utah	Forest	1.54
84.7	Extra Workspace	Cache	Utah	Forest	0.27
84.8	Extra Workspace	Cache	Utah	Forest	2.16
84.9	Extra Workspace	Cache	Utah	Developed	0.05
84.9	Extra Workspace	Cache	Utah	Open Land	0.23
85.0	Extra Workspace	Cache	Utah	Developed	0.15
85.0	Extra Workspace	Cache	Utah	Forest	0.70
85.1	Extra Workspace	Cache	Utah	Developed	0.10
85.1	Extra Workspace	Cache	Utah	Forest	0.70
85.2	Extra Workspace	Cache	Utah	Forest	0.94
85.3	Extra Workspace	Cache	Utah	Forest	0.40
85.3	Extra Workspace	Cache	Utah	Open Land	0.12
87.1	Staging Area	Cache	Utah	Forest	0.43
87.1	Staging Area	Cache	Utah	Open Land	0.25
87.4	Extra Workspace	Cache	Utah	Open Land	0.34
87.6	Extra Workspace	Cache	Utah	Forest	0.43
87.6	Extra Workspace	Cache	Utah	Open Land	0.27
87.7	Extra Workspace	Cache	Utah	Forest	4.33

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
87.8	Extra Workspace	Cache	Utah	Open Land	0.04
87.9	Extra Workspace	Cache	Utah	Forest	0.24
88.0	Extra Workspace	Cache	Utah	Forest	0.29
88.1	Extra Workspace	Cache	Utah	Forest	0.64
88.2	Extra Workspace	Cache	Utah	Forest	0.13
88.5	Extra Workspace	Cache	Utah	Forest	7.55
88.6	Extra Workspace	Cache	Utah	Forest	0.19
88.7	Extra Workspace	Cache	Utah	Forest	0.39
88.9	Extra Workspace	Cache	Utah	Open Land	0.06
89.7	Extra Workspace	Cache	Utah	Agriculture	0.03
89.7	Extra Workspace	Cache	Utah	Open Land	0.54
89.8	Extra Workspace	Cache	Utah	Agriculture	0.16
89.8	Extra Workspace	Cache	Utah	Forest	1.62
89.9	Extra Workspace	Cache	Utah	Open Land	0.03
90.5	Extra Workspace	Cache	Utah	Forest	0.01
90.5	Extra Workspace	Cache		Open Land	0.18
90.5	Staging Area	Cache	Utah	Forest	0.08
90.5	Staging Area	Cache	Utah	Open Land	0.66
90.6	Extra Workspace	Cache	Utah	Forest	0.18
90.7	Extra Workspace	Cache	Utah	Forest	0.04
90.7	Extra Workspace	Cache	Utah	Open Land	0.11
90.8	Extra Workspace	Cache	Utah	Forest	1.82
90.9	Extra Workspace	Cache	Utah	Open Land	2.19
91.1	Extra Workspace	Cache	Utah	Forest	0.49
91.2	Extra Workspace	Cache	Utah	Forest	0.84
91.2	Extra Workspace	Cache	Utah	Open Land	0.59

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
91.3	Extra Workspace	Cache	Utah	Forest	0.26
91.3	Extra Workspace	Cache	Utah	Open Land	5.35
91.4	Extra Workspace	Cache	Utah	Forest	0.56
91.4	Extra Workspace	Cache	Utah	Open Land	0.10
91.5	Extra Workspace	Cache	Utah	Forest	0.47
91.5	Extra Workspace	Cache	Utah	Open Land	0.00
91.6	Extra Workspace	Cache	Utah	Forest	0.23
91.7	Extra Workspace	Cache	Utah	Forest	1.75
91.8	Extra Workspace	Cache	Utah	Forest	0.13
91.9	Extra Workspace	Cache	Utah	Forest	0.44
92.0	Extra Workspace	Cache	Utah	Forest	0.41
92.1	Staging Area	Cache	Utah	Agriculture	0.09
92.1	Staging Area	Cache	Utah	Developed	0.11
92.1	Staging Area	Cache	Utah	Open Land	0.96
92.4	Extra Workspace	Cache	Utah	Agriculture	0.11
92.4	Extra Workspace	Cache	Utah	Open Land	0.05
92.5	Extra Workspace	Cache	Utah	Agriculture	0.04
92.5	Extra Workspace	Cache	Utah	Open Land	0.07
92.7	Extra Workspace	Cache	Utah	Agriculture	0.11
92.7	Extra Workspace	Cache	Utah	Open Land	0.32
92.8	Extra Workspace	Cache	Utah	Agriculture	1.20
92.8	Staging Area	Cache	Utah	Agriculture	0.36
92.9	Extra Workspace	Cache	Utah	Agriculture	0.06
92.9	Extra Workspace	Cache	Utah	Open Land	0.50
93.0	Extra Workspace	Cache	Utah	Forest	0.39
93.0	Extra Workspace	Cache	Utah	Open Land	0.35
93.4	Extra Workspace	Cache	Utah	Open Land	2.46

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
93.5	Extra Workspace	Cache	Utah	Open Land	0.06
93.5	Extra Workspace	Cache	Utah	Wetland	0.01
93.6	Extra Workspace	Cache	Utah	Forest	0.92
93.6	Extra Workspace	Cache	Utah	Open Land	0.16
93.7	Extra Workspace	Cache	Utah	Open Land	0.38
93.8	Extra Workspace	Cache	Utah	Forest	0.05
93.9	Extra Workspace	Cache	Utah	Forest	0.48
93.9	Extra Workspace	Cache	Utah	Open Land	1.69
94.0	Extra Workspace	Cache	Utah	Forest	0.34
94.6	Extra Workspace	Cache	Utah	Open Land	0.48
94.8	Extra Workspace	Cache	Utah	Agriculture	0.13
94.8	Extra Workspace	Cache	Utah	Developed	0.18
94.8	Extra Workspace	Cache	Utah	Forest	0.08
94.8	Extra Workspace	Cache	Utah	Wetland	0.02
94.9	Extra Workspace	Cache	Utah	Agriculture	0.64
94.9	Staging Area	Cache	Utah	Agriculture	0.80
95.0	Extra Workspace	Cache	Utah	Agriculture	0.14
95.0	Extra Workspace	Cache	Utah	Open Land	0.64
96.3	Extra Workspace	Cache	Utah	Forest	0.41
96.5	Extra Workspace	Cache	Utah	Forest	0.37
96.5	Extra Workspace	Cache	Utah	Open Land	2.53
96.6	Extra Workspace	Cache	Utah	Agriculture	0.23
96.6	Extra Workspace	Cache	Utah	Open Land	0.27
96.6	Extra Workspace	Cache	Utah	Wetland	0.03
96.7	Extra Workspace	Cache	Utah	Open Land	0.14
96.7	Staging Area	Cache	Utah	Open Land	0.82

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
97.2	Extra Workspace	Cache	Utah	Developed	0.20
97.2	Extra Workspace	Cache	Utah	Open Land	0.04
97.4	Extra Workspace	Cache	Utah	Forest	0.02
97.5	Extra Workspace	Cache	Utah	Forest	0.13
97.5	Extra Workspace	Cache	Utah	Open Land	3.44
97.6	Extra Workspace	Cache	Utah	Open Land	3.76
97.9	Extra Workspace	Cache	Utah	Forest	0.24
98.0	Extra Workspace	Cache	Utah	Forest	0.10
98.0	Extra Workspace	Cache	Utah	Open Land	0.08
99.0	Staging Area	Cache	Utah	Developed	0.01
99.0	Staging Area	Cache	Utah	Forest	0.00
99.0	Staging Area	Cache	Utah	Open Land	0.58
99.1	Staging Area	Cache	Utah	Developed	0.33
99.3	Extra Workspace	Cache	Utah	Forest	0.01
99.3	Extra Workspace	Cache	Utah	Open Land	0.34
99.4	Extra Workspace	Cache	Utah	Open Land	0.09
99.5	Extra Workspace	Cache	Utah	Open Land	0.04
99.7	Extra Workspace	Cache	Utah	Forest	1.40
99.8	Extra Workspace	Cache	Utah	Open Land	0.31
99.9	Extra Workspace	Cache	Utah	Forest	4.32
99.9	Extra Workspace	Cache	Utah	Open Land	3.34
100.3	Extra Workspace	Box Elder	Utah	Forest	0.01
100.4	Extra Workspace	Box Elder	Utah	Forest	0.39
100.5	Extra Workspace	Box Elder	Utah	Forest	0.20
100.6	Extra Workspace	Box Elder	Utah	Forest	0.10
100.6	Extra Workspace	Box Elder	Utah	Open Land	0.47
100.7	Extra Workspace	Box Elder	Utah	Forest	0.08

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
100.7	Extra Workspace	Box Elder	Utah	Open Land	0.05
100.8	Extra Workspace	Box Elder	Utah	Forest	2.91
100.9	Extra Workspace	Box Elder	Utah	Forest	0.10
101.0	Extra Workspace	Box Elder	Utah	Forest	0.39
101.1	Extra Workspace	Box Elder	Utah	Forest	1.24
101.2	Extra Workspace	Box Elder	Utah	Forest	0.28
101.3	Extra Workspace	Box Elder	Utah	Open Land	4.93
101.4	Extra Workspace	Box Elder	Utah	Open Land	3.84
101.6	Extra Workspace	Box Elder	Utah	Open Land	0.20
102.4	Extra Workspace	Box Elder	Utah	Forest	0.39
102.5	Extra Workspace	Box Elder	Utah	Open Land	2.96
102.6	Extra Workspace	Box Elder	Utah	Forest	0.03
102.6	Extra Workspace	Box Elder	Utah	Open Land	2.91
102.8	Extra Workspace	Box Elder	Utah	Developed	0.14
				Open Land	0.04
				Wetland	0.13
102.8	Staging Area	Box Elder	Utah	Forest	1.98
102.8	Staging Area	Box Elder	Utah	Open Land	0.14
102.9	Extra Workspace	Box Elder	Utah	Developed	0.13
102.9	Extra Workspace	Box Elder	Utah	Open Land	0.48
102.9	Extra Workspace	Box Elder	Utah	Wetland	0.08
102.9	Staging Area	Box Elder	Utah	Forest	0.40
102.9	Staging Area	Box Elder	Utah	Open Land	4.46
103.0	Extra Workspace	Box Elder	Utah	Developed	0.61
103.0	Extra Workspace	Box Elder	Utah	Wetland	0.02
103.1	Extra Workspace	Box Elder	Utah	Developed	0.13

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
103.1	Extra Workspace	Box Elder	Utah	Open Land	0.26
103.2	Extra Workspace	Box Elder	Utah	Developed	0.18
103.3	Extra Workspace	Box Elder	Utah	Developed	0.05
103.3	Extra Workspace	Box Elder	Utah	Open Land	2.78
103.4	Extra Workspace	Box Elder	Utah	Developed	0.07
103.4	Extra Workspace	Box Elder	Utah	Open Land	2.60
103.5	Extra Workspace	Box Elder	Utah	Developed	0.09
103.6	Extra Workspace	Box Elder	Utah	Developed	0.01
103.6	Extra Workspace	Box Elder	Utah	Forest	0.06
103.7	Extra Workspace	Box Elder	Utah	Open Land	0.27
103.8	Extra Workspace	Box Elder	Utah	Forest	0.14
103.8	Extra Workspace	Box Elder	Utah	Open Land	0.04
103.9	Extra Workspace	Box Elder	Utah	Forest	0.03
103.9	Extra Workspace	Box Elder	Utah	Open Land	1.44
104.0	Extra Workspace	Box Elder	Utah	Forest	0.27
104.0	Extra Workspace	Box Elder	Utah	Open Land	0.03
104.1	Extra Workspace	Box Elder	Utah	Forest	0.28
104.2	Extra Workspace	Box Elder	Utah	Open Land	0.09
104.3	Extra Workspace	Box Elder	Utah	Forest	1.39
104.3	Extra Workspace	Box Elder	Utah	Open Land	1.88
104.4	Extra Workspace	Box Elder	Utah	Forest	3.48
104.4	Extra Workspace	Box Elder	Utah	Open Land	4.07
104.7	Extra Workspace	Box Elder	Utah	Open Land	0.11
104.8	Extra Workspace	Box Elder	Utah	Forest	0.02
104.9	Extra Workspace	Box Elder	Utah	Forest	0.17

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
104.9	Extra Workspace	Box Elder	Utah	Forest	0.01
105.1	Extra Workspace	Box Elder	Utah	Open Land	0.21
105.1	Staging Area	Box Elder	Utah	Forest	0.03
105.1	Staging Area	Box Elder	Utah	Open Land	0.27
105.3	Extra Workspace	Box Elder	Utah	Developed	0.10
105.3	Staging Area	Box Elder	Utah	Developed	0.12
105.5	Extra Workspace	Box Elder	Utah	Developed	0.07
105.5	Extra Workspace	Box Elder	Utah	Open Land	0.30
105.5	Staging Area	Box Elder	Utah	Developed	0.00
105.5	Staging Area	Box Elder	Utah	Open Land	2.46
105.8	Extra Workspace	Box Elder	Utah	Forest	0.10
105.9	Extra Workspace	Box Elder	Utah	Forest	0.02
106.0	Extra Workspace	Box Elder	Utah	Forest	0.33
106.3	Extra Workspace	Box Elder	Utah	Open Land	0.82
106.4	Extra Workspace	Box Elder	Utah	Agriculture	0.02
106.4	Extra Workspace	Box Elder	Utah	Forest	0.03
106.5	Extra Workspace	Box Elder	Utah	Agriculture	0.53
106.6	Extra Workspace	Box Elder	Utah	Agriculture	0.19
106.7	Extra Workspace	Box Elder	Utah	Forest	0.14
106.7	Extra Workspace	Box Elder	Utah	Open Land	20.50
106.7	Extra Workspace	Box Elder	Utah	Wetland	0.00
106.9	Extra Workspace	Box Elder	Utah	Agriculture	0.04
107.8	Extra Workspace	Box Elder	Utah	Agriculture	0.41
107.9	Extra Workspace	Box Elder	Utah	Forest	0.08
107.9	Extra Workspace	Box Elder	Utah	Open Land	0.52

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
108.0	Extra Workspace	Box Elder	Utah	Forest	0.69
108.0	Extra Workspace	Box Elder	Utah	Open Land	0.24
108.1	Extra Workspace	Box Elder	Utah	Agriculture	0.18
108.1	Extra Workspace	Box Elder	Utah	Open Land	0.04
108.5	Extra Workspace	Box Elder	Utah	Open Land	5.99
108.6	Extra Workspace	Box Elder	Utah	Forest	0.50
108.7	Extra Workspace	Box Elder	Utah	Forest	0.90
108.7	Extra Workspace	Box Elder	Utah	Open Land	0.08
108.8	Extra Workspace	Box Elder	Utah	Forest	0.39
108.8	Extra Workspace	Box Elder	Utah	Open Land	0.17
108.9	Extra Workspace	Box Elder	Utah	Developed	0.19
108.9	Extra Workspace	Box Elder	Utah	Forest	0.08
109.0	Extra Workspace	Box Elder	Utah	Agriculture	0.81
109.0	Extra Workspace	Box Elder	Utah	Developed	0.18
109.1	Extra Workspace	Box Elder	Utah	Agriculture	0.93
109.1	Extra Workspace	Box Elder	Utah	Forest	0.06
109.1	Extra Workspace	Box Elder	Utah	Wetland	0.20
109.2	Extra Workspace	Box Elder	Utah	Wetland	0.23
109.4	Extra Workspace	Box Elder	Utah	Wetland	5.87
109.5	Extra Workspace	Box Elder	Utah	Wetland	1.86
109.6	Extra Workspace	Box Elder	Utah	Wetland	0.00
109.8	Extra Workspace	Box Elder	Utah	Wetland	0.14
109.9	Extra Workspace	Box Elder	Utah	Wetland	5.51
110.1	Extra Workspace	Box Elder	Utah	Wetland	0.27
110.2	Extra Workspace	Box Elder	Utah	Agriculture	0.95

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
110.3	Extra Workspace	Box Elder	Utah	Wetland	0.29
110.4	Extra Workspace	Box Elder	Utah	Agriculture	0.01
110.4	Extra Workspace	Box Elder	Utah	Wetland	3.33
110.5	Extra Workspace	Box Elder	Utah	Agriculture	0.49
110.5	Extra Workspace	Box Elder	Utah	Forest	0.51
110.5	Extra Workspace	Box Elder	Utah	Wetland	0.30
110.6	Extra Workspace	Box Elder	Utah	Agriculture	0.10
110.6	Extra Workspace	Box Elder	Utah	Wetland	0.43
110.7	Extra Workspace	Box Elder	Utah	Wetland	0.66
110.9	Extra Workspace	Box Elder	Utah	Wetland	6.29
111.0	Extra Workspace	Box Elder	Utah	Wetland	0.31
111.1	Extra Workspace	Box Elder	Utah	Wetland	1.10
111.2	Extra Workspace	Box Elder	Utah	Wetland	1.11
111.3	Extra Workspace	Box Elder	Utah	Wetland	1.59
111.5	Extra Workspace	Box Elder	Utah	Wetland	0.26
111.8	Extra Workspace	Box Elder	Utah	Wetland	10.76
111.9	Extra Workspace	Box Elder	Utah	Wetland	0.10
112.0	Extra Workspace	Box Elder	Utah	Wetland	0.11
112.1	Extra Workspace	Box Elder	Utah	Wetland	0.18
112.2	Extra Workspace	Box Elder	Utah	Wetland	0.26
112.3	Extra Workspace	Box Elder	Utah	Wetland	2.34
112.4	Extra Workspace	Box Elder	Utah	Agriculture	0.41
112.4	Extra Workspace	Box Elder	Utah	Wetland	0.60
112.5	Extra Workspace	Box Elder	Utah	Developed	0.73
112.5	Extra Workspace	Box Elder	Utah	Wetland	0.02

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
112.6	Extra Workspace	Box Elder	Utah	Wetland	0.03
112.8	Extra Workspace	Box Elder	Utah	Agriculture	4.71
113.0	Extra Workspace	Box Elder	Utah	Agriculture	1.23
113.1	Extra Workspace	Box Elder	Utah	Agriculture	0.01
113.1	Extra Workspace	Box Elder	Utah	Developed	0.17
113.4	Extra Workspace	Box Elder	Utah	Agriculture	5.01
113.6	Extra Workspace	Box Elder	Utah	Developed	0.42
113.6	Extra Workspace	Box Elder	Utah	Forest	0.24
113.7	Extra Workspace	Box Elder	Utah	Open Water	0.37
114.0	Extra Workspace	Box Elder	Utah	Agriculture	5.61
114.4	Extra Workspace	Box Elder	Utah	Agriculture	2.16
114.5	Extra Workspace	Box Elder	Utah	Agriculture	0.25
114.5	Extra Workspace	Box Elder	Utah	Developed	0.17
114.6	Extra Workspace	Box Elder	Utah	Agriculture	0.43
115.0	Extra Workspace	Box Elder	Utah	Agriculture	3.73
115.1	Extra Workspace	Box Elder	Utah	Agriculture	2.40
115.3	Extra Workspace	Box Elder	Utah	Agriculture	0.03
115.4	Extra Workspace	Box Elder	Utah	Agriculture	1.32
115.5	Extra Workspace	Box Elder	Utah	Developed	0.38
115.7	Extra Workspace	Box Elder	Utah	Agriculture	3.35
115.9	Extra Workspace	Box Elder	Utah	Agriculture	0.11
115.9	Extra Workspace	Box Elder	Utah	Forest	0.21
116.0	Extra Workspace	Box Elder	Utah	Agriculture	0.93
116.0	Extra Workspace	Box Elder	Utah	Forest	0.01
116.4	Extra Workspace	Box Elder	Utah	Forest	6.38

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
116.7	Extra Workspace	Box Elder	Utah	Agriculture	0.74
116.7	Extra Workspace	Box Elder	Utah	Open Land	0.45
116.7	Staging Area	Box Elder	Utah	Forest	0.32
116.8	Extra Workspace	Box Elder	Utah	Agriculture	0.67
116.8	Extra Workspace	Box Elder	Utah	Open Land	0.29
116.8	Staging Area	Box Elder	Utah	Agriculture	5.80
116.8	Staging Area	Box Elder	Utah	Open Land	1.84
116.9	Extra Workspace	Box Elder	Utah	Open Land	0.03
116.9	Extra Workspace	Box Elder	Utah	Wetland	0.43
116.9	Staging Area	Box Elder	Utah	Agriculture	0.02
116.9	Staging Area	Box Elder	Utah	Open Land	0.25
116.9	Staging Area	Box Elder	Utah	Wetland	3.05
117.0	Extra Workspace	Box Elder	Utah	Agriculture	0.29
117.0	Extra Workspace	Box Elder	Utah	Open Land	0.78
117.0	Extra Workspace	Box Elder	Utah	Wetland	0.07
117.0	Staging Area	Box Elder	Utah	Agriculture	4.37
117.0	Staging Area	Box Elder	Utah	Developed	2.48
117.0	Staging Area	Box Elder	Utah	Open Land	5.43
117.0	Staging Area	Box Elder	Utah	Wetland	0.00
117.1	Extra Workspace	Box Elder	Utah	Agriculture	0.55
117.1	Extra Workspace	Box Elder	Utah	Developed	0.19
117.1	Staging Area	Box Elder	Utah	Agriculture	1.24
117.2	Extra Workspace	Box Elder	Utah	Agriculture	1.54
117.5	Extra Workspace	Box Elder	Utah	Agriculture	1.60
117.6	Extra Workspace	Box Elder	Utah	Agriculture	2.03

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
117.6	Extra Workspace	Box Elder	Utah	Forest	1.27
117.8	Extra Workspace	Box Elder	Utah	Agriculture	2.26
118.0	Extra Workspace	Box Elder	Utah	Agriculture	0.01
118.0	Extra Workspace	Box Elder	Utah	Developed	0.16
118.1	Extra Workspace	Box Elder	Utah	Agriculture	0.37
118.1	Extra Workspace	Box Elder	Utah	Forest	0.36
118.1	Extra Workspace	Box Elder	Utah	Open Water	0.42
118.2	Extra Workspace	Box Elder	Utah	Agriculture	0.00
118.2	Extra Workspace	Box Elder	Utah	Forest	0.82
118.3	Extra Workspace	Box Elder	Utah	Open Land	0.61
118.4	Extra Workspace	Box Elder	Utah	Agriculture	0.14
118.4	Extra Workspace	Box Elder	Utah	Developed	0.12
118.4	Extra Workspace	Box Elder	Utah	Open Land	1.12
118.5	Extra Workspace	Box Elder	Utah	Agriculture	0.66
118.5	Extra Workspace	Box Elder	Utah	Developed	0.35
118.6	Extra Workspace	Box Elder	Utah	Agriculture	0.10
118.6	Extra Workspace	Box Elder	Utah	Wetland	0.22
118.7	Extra Workspace	Box Elder	Utah	Agriculture	2.99
118.9	Extra Workspace	Box Elder	Utah	Agriculture	0.23
119.0	Extra Workspace	Box Elder	Utah	Agriculture	0.14
119.0	Extra Workspace	Box Elder	Utah	Open Land	1.44
119.1	Extra Workspace	Box Elder	Utah	Agriculture	0.45
119.1	Extra Workspace	Box Elder	Utah	Forest	0.21
119.1	Extra Workspace	Box Elder	Utah	Open Land	0.02
119.1	Extra Workspace	Box Elder	Utah	Wetland	0.04

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
119.2	Extra Workspace	Box Elder	Utah	Agriculture	0.41
119.2	Extra Workspace	Box Elder	Utah	Forest	0.15
119.2	Extra Workspace	Box Elder	Utah	Open Land	0.18
119.2	Extra Workspace	Box Elder	Utah	Wetland	0.05
119.3	Extra Workspace	Box Elder	Utah	Agriculture	0.17
119.3	Extra Workspace	Box Elder	Utah	Open Land	0.84
119.4	Extra Workspace	Box Elder	Utah	Agriculture	1.17
119.4	Extra Workspace	Box Elder	Utah	Developed	0.31
119.5	Extra Workspace	Box Elder	Utah	Agriculture	0.10
119.5	Extra Workspace	Box Elder	Utah	Developed	0.52
119.5	Extra Workspace	Box Elder	Utah	Forest	0.15
119.5	Extra Workspace	Box Elder	Utah	Wetland	0.09
119.6	Extra Workspace	Box Elder	Utah	Agriculture	0.50
119.6	Extra Workspace	Box Elder	Utah	Developed	0.17
119.6	Extra Workspace	Box Elder	Utah	Forest	0.01
119.6	Extra Workspace	Box Elder	Utah	Open Land	0.15
119.7	Extra Workspace	Box Elder	Utah	Agriculture	0.25
119.7	Extra Workspace	Box Elder	Utah	Developed	0.30
119.7	Extra Workspace	Box Elder	Utah	Forest	0.11
119.7	Extra Workspace	Box Elder	Utah	Open Land	0.41
119.8	Extra Workspace	Box Elder	Utah	Agriculture	0.33
119.8	Extra Workspace	Box Elder	Utah	Forest	0.12
119.8	Extra Workspace	Box Elder	Utah	Open Land	0.09
119.8	Extra Workspace	Box Elder	Utah	Wetland	0.45

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
119.9	Extra Workspace	Box Elder	Utah	Agriculture	0.44
119.9	Extra Workspace	Box Elder	Utah	Open Land	0.90
120.0	Extra Workspace	Box Elder	Utah	Open Land	0.46
120.1	Extra Workspace	Box Elder	Utah	Developed	0.26
120.1	Extra Workspace	Box Elder	Utah	Open Land	1.03
120.2	Extra Workspace	Box Elder	Utah	Open Land	0.13
120.3	Extra Workspace	Box Elder	Utah	Agriculture	1.76
120.4	Extra Workspace	Box Elder	Utah	Agriculture	1.53
120.5	Extra Workspace	Box Elder	Utah	Developed	0.09
120.6	Extra Workspace	Box Elder	Utah	Developed	0.18
120.8	Extra Workspace	Box Elder	Utah	Agriculture	0.29
121.0	Extra Workspace	Box Elder	Utah	Agriculture	0.11
121.1	Extra Workspace	Box Elder	Utah	Open Land	0.35
121.2	Extra Workspace	Box Elder	Utah	Agriculture	10.80
121.2	Extra Workspace	Box Elder	Utah	Open Land	0.60
121.3	Extra Workspace	Box Elder	Utah	Agriculture	0.00
121.3	Extra Workspace	Box Elder	Utah	Open Land	0.11
121.4	Extra Workspace	Box Elder	Utah	Agriculture	0.04
121.4	Extra Workspace	Box Elder	Utah	Open Land	0.58
121.9	Extra Workspace	Box Elder	Utah	Agriculture	0.42
121.9	Extra Workspace	Box Elder	Utah	Open Land	0.43
122.0	Extra Workspace	Box Elder	Utah	Agriculture	0.01
122.0	Extra Workspace	Box Elder	Utah	Open Land	0.38
122.1	Extra Workspace	Box Elder	Utah	Agriculture	1.00
122.1	Extra Workspace	Box Elder	Utah	Open Land	1.22

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
122.2	Extra Workspace	Box Elder	Utah	Agriculture	0.06
122.3	Extra Workspace	Box Elder	Utah	Agriculture	1.44
122.4	Extra Workspace	Box Elder	Utah	Open Land	0.94
122.5	Extra Workspace	Box Elder	Utah	Agriculture	0.03
122.5	Extra Workspace	Box Elder	Utah	Open Land	0.38
122.6	Extra Workspace	Box Elder	Utah	Agriculture	1.19
122.7	Extra Workspace	Box Elder	Utah	Agriculture	1.34
122.8	Extra Workspace	Box Elder	Utah	Developed	0.20
122.8	Extra Workspace	Box Elder	Utah	Open Land	0.35
122.9	Extra Workspace	Box Elder	Utah	Agriculture	0.02
122.9	Extra Workspace	Box Elder	Utah	Open Land	0.27
123.0	Extra Workspace	Box Elder	Utah	Open Land	0.05
123.1	Extra Workspace	Box Elder	Utah	Open Land	0.20
123.4	Extra Workspace	Box Elder	Utah	Open Land	8.80
123.5	Extra Workspace	Box Elder	Utah	Open Land	0.69
123.6	Extra Workspace	Box Elder	Utah	Open Land	0.11
123.7	Extra Workspace	Box Elder	Utah	Open Land	0.90
123.8	Extra Workspace	Box Elder	Utah	Open Land	0.07
123.9	Extra Workspace	Box Elder	Utah	Open Land	0.71
124.0	Extra Workspace	Box Elder	Utah	Open Land	0.44
124.0	Staging Area	Box Elder	Utah	Open Land	0.85
124.1	Extra Workspace	Box Elder	Utah	Open Land	0.37
124.2	Extra Workspace	Box Elder	Utah	Open Land	0.00
124.2	Extra Workspace	Box Elder	Utah	Wetland	1.57
124.3	Extra Workspace	Box Elder	Utah	Open Land	0.35

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
124.3	Extra Workspace	Box Elder	Utah	Wetland	0.82
124.4	Extra Workspace	Box Elder	Utah	Agriculture	0.47
124.4	Extra Workspace	Box Elder	Utah	Wetland	0.13
124.7	Extra Workspace	Box Elder	Utah	Agriculture	4.03
124.8	Extra Workspace	Box Elder	Utah	Forest	0.11
124.8	Extra Workspace	Box Elder	Utah	Wetland	0.11
124.9	Extra Workspace	Box Elder	Utah	Forest	1.54
124.9	Extra Workspace	Box Elder	Utah	Wetland	0.61
125.0	Extra Workspace	Box Elder	Utah	Agriculture	0.57
125.0	Extra Workspace	Box Elder	Utah	Wetland	0.18
125.1	Extra Workspace	Box Elder	Utah	Open Land	0.21
125.1	Extra Workspace	Box Elder	Utah	Wetland	0.75
125.2	Extra Workspace	Box Elder	Utah	Forest	0.00
125.2	Extra Workspace	Box Elder	Utah	Open Land	0.17
125.2	Extra Workspace	Box Elder	Utah	Wetland	0.29
125.3	Extra Workspace	Box Elder	Utah	Agriculture	1.33
125.3	Extra Workspace	Box Elder	Utah	Forest	0.01
125.3	Extra Workspace	Box Elder	Utah	Wetland	0.19
125.4	Extra Workspace	Box Elder	Utah	Agriculture	0.47
125.4	Extra Workspace	Box Elder	Utah	Forest	0.18
125.4	Extra Workspace	Box Elder	Utah	Wetland	0.18
125.5	Extra Workspace	Box Elder	Utah	Wetland	1.00
125.6	Extra Workspace	Box Elder	Utah	Agriculture	0.92
125.6	Extra Workspace	Box Elder	Utah	Open Land	0.57
125.6	Extra Workspace	Box Elder	Utah	Wetland	0.01

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
125.7	Extra Workspace	Box Elder	Utah	Developed	0.09
125.7	Extra Workspace	Box Elder	Utah	Open Land	0.46
125.8	Extra Workspace	Box Elder	Utah	Agriculture	0.81
125.8	Extra Workspace	Box Elder	Utah	Forest	0.07
125.8	Extra Workspace	Box Elder	Utah	Open Land	0.27
125.8	Extra Workspace	Box Elder	Utah	Wetland	0.17
125.9	Extra Workspace	Box Elder	Utah	Wetland	0.04
126.0	Extra Workspace	Box Elder	Utah	Wetland	3.51
126.1	Extra Workspace	Box Elder	Utah	Wetland	0.93
126.2	Extra Workspace	Box Elder	Utah	Agriculture	0.09
126.2	Extra Workspace	Box Elder	Utah	Developed	0.08
126.2	Extra Workspace	Box Elder	Utah	Open Land	0.15
126.2	Extra Workspace	Box Elder	Utah	Wetland	0.00
126.3	Extra Workspace	Box Elder	Utah	Developed	0.09
126.3	Extra Workspace	Box Elder	Utah	Open Land	1.29
126.4	Extra Workspace	Box Elder	Utah	Agriculture	0.18
126.4	Extra Workspace	Box Elder	Utah	Open Land	0.37
126.5	Extra Workspace	Box Elder	Utah	Open Land	0.98
126.6	Extra Workspace	Box Elder	Utah	Agriculture	0.83
126.6	Extra Workspace	Box Elder	Utah	Forest	0.07
126.6	Extra Workspace	Box Elder	Utah	Wetland	0.23
126.7	Extra Workspace	Box Elder	Utah	Forest	2.21
126.7	Extra Workspace	Box Elder	Utah	Wetland	0.38
126.9	Extra Workspace	Box Elder	Utah	Agriculture	0.35
126.9	Extra Workspace	Box Elder	Utah	Open Land	0.35

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
127.0	Extra Workspace	Box Elder	Utah	Forest	0.46
127.0	Extra Workspace	Box Elder	Utah	Wetland	0.16
127.1	Extra Workspace	Box Elder	Utah	Agriculture	1.03
127.2	Extra Workspace	Box Elder	Utah	Agriculture	1.55
127.2	Extra Workspace	Box Elder	Utah	Developed	0.68
127.3	Extra Workspace	Box Elder	Utah	Developed	0.18
127.4	Extra Workspace	Box Elder	Utah	Agriculture	0.03
127.4	Extra Workspace	Box Elder	Utah	Forest	0.85
127.4	Staging Area	Box Elder	Utah	Forest	0.07
127.5	Extra Workspace	Box Elder	Utah	Agriculture	1.49
127.5	Staging Area	Box Elder	Utah	Agriculture	0.67
127.6	Extra Workspace	Box Elder	Utah	Agriculture	0.21
127.6	Extra Workspace	Box Elder	Utah	Developed	0.20
127.6	Extra Workspace	Box Elder	Utah	Open Land	0.14
127.7	Extra Workspace	Box Elder	Utah	Open Land	0.04
128.1	Extra Workspace	Box Elder	Utah	Open Land	0.17
128.2	Extra Workspace	Box Elder	Utah	Open Land	0.27
128.5	Extra Workspace	Box Elder	Utah	Open Land	0.67
128.7	Extra Workspace	Box Elder	Utah	Open Land	0.49
128.8	Extra Workspace	Box Elder	Utah	Open Land	0.36
128.9	Extra Workspace	Box Elder	Utah	Open Land	0.15
129.0	Extra Workspace	Box Elder	Utah	Open Land	7.31
129.1	Extra Workspace	Box Elder	Utah	Open Land	6.84
129.4	Extra Workspace	Box Elder	Utah	Agriculture	0.18
129.4	Extra Workspace	Box Elder	Utah	Open Land	0.06

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
129.6	Extra Workspace	Box Elder	Utah	Open Land	0.54
129.7	Extra Workspace	Box Elder	Utah	Open Land	0.36
129.8	Extra Workspace	Box Elder	Utah	Open Land	0.09
129.9	Extra Workspace	Box Elder	Utah	Agriculture	0.06
129.9	Extra Workspace	Box Elder	Utah	Open Land	0.19
130.2	Extra Workspace	Box Elder	Utah	Agriculture	2.27
130.2	Extra Workspace	Box Elder	Utah	Open Land	0.09
130.3	Extra Workspace	Box Elder	Utah	Agriculture	3.22
130.5	Extra Workspace	Box Elder	Utah	Open Land	0.62
130.6	Extra Workspace	Box Elder	Utah	Agriculture	0.04
130.7	Extra Workspace	Box Elder	Utah	Open Land	0.95
130.8	Extra Workspace	Box Elder	Utah	Open Land	0.68
130.9	Extra Workspace	Box Elder	Utah	Open Land	0.06
131.0	Extra Workspace	Box Elder	Utah	Open Land	0.52
131.3	Extra Workspace	Box Elder	Utah	Open Land	9.73
131.8	Extra Workspace	Box Elder	Utah	Agriculture	0.38
132.0	Extra Workspace	Box Elder	Utah	Agriculture	2.67
132.1	Extra Workspace	Box Elder	Utah	Agriculture	0.22
132.6	Extra Workspace	Box Elder	Utah	Agriculture	0.82
132.7	Extra Workspace	Box Elder	Utah	Agriculture	0.91
132.7	Staging Area	Box Elder	Utah	Agriculture	0.80
134.1	Extra Workspace	Box Elder	Utah	Agriculture	0.03
134.2	Extra Workspace	Box Elder	Utah	Agriculture	0.64
134.3	Extra Workspace	Box Elder	Utah	Open Land	0.10
134.4	Extra Workspace	Box Elder	Utah	Open Land	3.09

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
134.5	Extra Workspace	Box Elder	Utah	Open Land	0.33
134.6	Extra Workspace	Box Elder	Utah	Open Land	0.59
134.8	Extra Workspace	Box Elder	Utah	Open Land	0.44
134.9	Extra Workspace	Box Elder	Utah	Open Land	4.39
135.1	Extra Workspace	Box Elder	Utah	Open Land	0.30
135.2	Extra Workspace	Box Elder	Utah	Open Land	0.76
135.4	Extra Workspace	Box Elder	Utah	Open Land	3.35
135.6	Extra Workspace	Box Elder	Utah	Open Land	0.15
136.7	Extra Workspace	Box Elder	Utah	Agriculture	0.01
136.8	Extra Workspace	Box Elder	Utah	Developed	0.32
136.8	Extra Workspace	Box Elder	Utah	Open Land	0.43
137.1	Extra Workspace	Box Elder	Utah	Agriculture	0.96
137.2	Extra Workspace	Box Elder	Utah	Open Land	0.22
137.6	Extra Workspace	Box Elder	Utah	Agriculture	0.25
137.6	Extra Workspace	Box Elder	Utah	Open Land	0.28
137.7	Extra Workspace	Box Elder	Utah	Agriculture	0.84
137.8	Extra Workspace	Box Elder	Utah	Agriculture	0.02
137.8	Extra Workspace	Box Elder	Utah	Developed	0.29
137.8	Extra Workspace	Box Elder	Utah	Open Land	0.25
137.8	Staging Area	Box Elder	Utah	Agriculture	0.02
137.8	Staging Area	Box Elder	Utah	Developed	0.46
137.8	Staging Area	Box Elder	Utah	Open Land	0.37
139.4	Extra Workspace	Box Elder	Utah	Agriculture	0.10
139.4	Extra Workspace	Box Elder	Utah	Open Land	1.02
139.5	Extra Workspace	Box Elder	Utah	Agriculture	0.20

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
141.2	Extra Workspace	Box Elder	Utah	Open Land	0.84
142.5	Extra Workspace	Box Elder	Utah	Open Land	0.48
142.7	Extra Workspace	Box Elder	Utah	Open Land	27.10
143.1	Extra Workspace	Box Elder	Utah	Open Land	0.98
143.3	Extra Workspace	Box Elder	Utah	Forest	0.12
143.4	Extra Workspace	Box Elder	Utah	Forest	0.25
143.5	Extra Workspace	Box Elder	Utah	Forest	0.35
144.0	Extra Workspace	Box Elder	Utah	Forest	0.63
144.1	Extra Workspace	Box Elder	Utah	Forest	0.10
144.6	Extra Workspace	Box Elder	Utah	Open Land	0.89
144.6	Staging Area	Box Elder	Utah	Open Land	0.75
145.1	Extra Workspace	Box Elder	Utah	Open Land	0.84
145.2	Extra Workspace	Box Elder	Utah	Open Land	1.25
145.3	Extra Workspace	Box Elder	Utah	Open Land	1.17
145.4	Extra Workspace	Box Elder	Utah	Developed	0.22
145.4	Extra Workspace	Box Elder	Utah	Open Land	0.10
146.1	Extra Workspace	Box Elder	Utah	Open Land	1.25
146.7	Extra Workspace	Box Elder	Utah	Open Land	0.60
149.6	Extra Workspace	Box Elder	Utah	Open Land	0.23
149.7	Extra Workspace	Box Elder	Utah	Open Land	0.32
150.4	Extra Workspace	Box Elder	Utah	Open Land	0.07

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
150.5	Extra Workspace	Box Elder	Utah	Developed	0.35
150.5	Extra Workspace	Box Elder	Utah	Open Land	0.11
150.5	Staging Area	Box Elder	Utah	Developed	0.53
150.5	Staging Area	Box Elder	Utah	Open Land	0.47
154.3	Extra Workspace	Box Elder	Utah	Agriculture	0.99
154.4	Extra Workspace	Box Elder	Utah	Agriculture	0.31
154.4	Extra Workspace	Box Elder	Utah	Developed	0.18
154.4	Extra Workspace	Box Elder	Utah	Open Land	0.43
154.5	Extra Workspace	Box Elder	Utah	Agriculture	0.44
154.5	Extra Workspace	Box Elder	Utah	Open Land	0.46
154.6	Extra Workspace	Box Elder	Utah	Agriculture	0.39
154.6	Extra Workspace	Box Elder	Utah	Open Land	0.37
154.7	Extra Workspace	Box Elder	Utah	Agriculture	0.67
154.7	Extra Workspace	Box Elder	Utah	Open Land	0.37
154.8	Extra Workspace	Box Elder	Utah	Agriculture	0.93
154.8	Extra Workspace	Box Elder	Utah	Open Land	0.01
154.9	Extra Workspace	Box Elder	Utah	Agriculture	0.61
155.2	Extra Workspace	Box Elder	Utah	Open Land	0.97
155.4	Extra Workspace	Box Elder	Utah	Developed	0.11
155.5	Extra Workspace	Box Elder	Utah	Developed	0.23
155.5	Extra Workspace	Box Elder	Utah	Open Land	0.20
155.7	Extra Workspace	Box Elder	Utah	Open Land	7.08
155.8	Extra Workspace	Box Elder	Utah	Open Land	7.31
155.8	Staging Area	Box Elder	Utah	Open Land	0.77
156.3	Extra Workspace	Box Elder	Utah	Open Land	0.03

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
156.4	Extra Workspace	Box Elder	Utah	Open Land	0.43
156.7	Extra Workspace	Box Elder	Utah	Open Land	1.92
157.1	Extra Workspace	Box Elder	Utah	Open Land	0.30
157.3	Extra Workspace	Box Elder	Utah	Open Land	0.30
157.4	Extra Workspace	Box Elder	Utah	Open Land	0.11
157.8	Extra Workspace	Box Elder	Utah	Open Land	12.04
158.4	Extra Workspace	Box Elder	Utah	Open Land	0.26
158.5	Extra Workspace	Box Elder	Utah	Open Land	0.76
158.6	Extra Workspace	Box Elder	Utah	Open Land	0.74
158.7	Extra Workspace	Box Elder	Utah	Open Land	1.06
161.0	Extra Workspace	Box Elder	Utah	Developed	0.03
161.0	Extra Workspace	Box Elder	Utah	Open Land	0.08
161.0	Staging Area	Box Elder	Utah	Developed	0.36
161.0	Staging Area	Box Elder	Utah	Open Land	0.77
161.1	Extra Workspace	Box Elder	Utah	Open Land	0.63
165.9	Extra Workspace	Box Elder	Utah	Open Land	0.16
165.9	Staging Area	Box Elder	Utah	Open Land	0.76
166.0	Extra Workspace	Box Elder	Utah	Open Land	1.77
167.0	Extra Workspace	Box Elder	Utah	Open Land	0.44
167.1	Extra Workspace	Box Elder	Utah	Open Land	0.20
167.3	Extra Workspace	Box Elder	Utah	Open Land	8.08
172.7	Extra Workspace	Box Elder	Utah	Open Land	0.59
173.2	Extra Workspace	Box Elder	Utah	Open Land	0.55
174.1	Staging Area	Box Elder	Utah	Open Land	1.07
174.3	Staging Area	Box Elder	Utah	Open Land	34.57

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
176.8	Extra Workspace	Box Elder	Utah	Open Land	2.10
176.9	Extra Workspace	Box Elder	Utah	Open Land	0.03
177.9	Extra Workspace	Box Elder	Utah	Open Land	0.93
179.8	Extra Workspace	Box Elder	Utah	Open Land	3.57
180.1	Extra Workspace	Box Elder	Utah	Open Land	1.51
180.2	Extra Workspace	Box Elder	Utah	Open Land	0.44
181.2	Extra Workspace	Box Elder	Utah	Open Land	0.73
184.8	Extra Workspace	Box Elder	Utah	Developed	0.07
184.8	Extra Workspace	Box Elder	Utah	Open Land	0.20
184.8	Staging Area	Box Elder	Utah	Open Land	0.70
184.9	Extra Workspace	Box Elder	Utah	Open Land	0.04
185.0	Extra Workspace	Box Elder	Utah	Open Land	3.22
185.1	Extra Workspace	Box Elder	Utah	Developed	0.04
185.1	Extra Workspace	Box Elder	Utah	Wetland	0.69
185.2	Extra Workspace	Box Elder	Utah	Developed	0.01
185.9	Extra Workspace	Box Elder	Utah	Developed	0.15
186.1	Extra Workspace	Box Elder	Utah	Developed	0.82
186.8	Extra Workspace	Box Elder	Utah	Open Land	14.41
187.0	Extra Workspace	Box Elder	Utah	Developed	1.85
187.1	Extra Workspace	Box Elder	Utah	Developed	0.70
189.6	Extra Workspace	Box Elder	Utah	Open Land	3.47
189.6	Staging Area	Box Elder	Utah	Open Land	0.76
190.5	Extra Workspace	Box Elder	Utah	Open Land	0.09
190.6	Extra Workspace	Box Elder	Utah	Developed	0.26
190.6	Extra Workspace	Box Elder	Utah	Open Land	0.82

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
200.5	Staging Area	Box Elder	Utah	Developed	2.61
200.5	Staging Area	Box Elder	Utah	Open Land	0.91
206.0	Staging Area	Box Elder	Utah	Developed	0.26
206.0	Staging Area	Box Elder	Utah	Open Land	0.65
206.0	Staging Area	Box Elder	Utah	Developed	0.36
206.0	Staging Area	Box Elder	Utah	Open Land	0.04
206.9	Extra Workspace	Box Elder	Utah	Developed	0.24
206.9	Extra Workspace	Box Elder	Utah	Open Land	0.21
207.6	Extra Workspace	Box Elder	Utah	Developed	0.19
207.7	Extra Workspace	Box Elder	Utah	Developed	1.01
207.7	Extra Workspace	Box Elder	Utah	Open Land	1.19
207.8	Extra Workspace	Box Elder	Utah	Open Land	0.00
208.0	Extra Workspace	Box Elder	Utah	Developed	0.12
208.0	Extra Workspace	Box Elder	Utah	Open Land	0.46
208.1	Extra Workspace	Box Elder	Utah	Developed	0.21
208.1	Extra Workspace	Box Elder	Utah	Open Land	0.26
211.4	Extra Workspace	Box Elder	Utah	Developed	0.05
211.4	Extra Workspace	Box Elder	Utah	Open Land	1.55
212.3	Extra Workspace	Box Elder	Utah	Developed	1.27
212.6	Extra Workspace	Box Elder	Utah	Open Land	0.03
213.0	Extra Workspace	Box Elder	Utah	Open Land	11.11
213.1	Extra Workspace	Box Elder	Utah	Open Land	9.70
214.5	Extra Workspace	Box Elder	Utah	Developed	0.10
214.5	Extra Workspace	Box Elder	Utah	Open Land	0.46
214.7	Extra Workspace	Box Elder	Utah	Developed	1.14

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
214.7	Extra Workspace	Box Elder	Utah	Open Land	0.60
215.6	Extra Workspace	Box Elder	Utah	Developed	2.64
				Open Land	2.33
215.7	Extra Workspace	Box Elder	Utah	Developed	0.52
215.8	Extra Workspace	Box Elder	Utah	Open Land	0.21
222.0	Extra Workspace	Box Elder	Utah	Developed	0.27
				Open Land	0.47
222.2	Staging Area	Box Elder	Utah	Open Land	3.44
222.3	Extra Workspace	Box Elder	Utah	Developed	0.38
222.3	Extra Workspace	Box Elder	Utah	Open Land	0.21
222.3	Staging Area	Box Elder	Utah	Developed	2.03
222.3	Staging Area	Box Elder	Utah	Open Land	0.38
223.6	Extra Workspace	Box Elder	Utah	Open Land	0.06
223.9	Extra Workspace	Box Elder	Utah	Open Land	10.65
224.5	Extra Workspace	Box Elder	Utah	Open Land	0.00
224.9	Extra Workspace	Box Elder	Utah	Open Land	1.88
225.0	Extra Workspace	Box Elder	Utah	Open Land	1.77
226.1	Staging Area	Box Elder	Utah	Open Land	0.92
227.6	Extra Workspace	Box Elder	Utah	Open Land	0.78
228.6	Extra Workspace	Box Elder	Utah	Open Land	0.07
229.2	Extra Workspace	Box Elder	Utah	Open Land	0.08
229.3	Extra Workspace	Box Elder	Utah	Open Land	23.53
230.6	Extra Workspace	Elko	Nevada	Open Land	0.93
230.8	Extra Workspace	Elko	Nevada	Open Land	0.03
230.9	Extra Workspace	Elko	Nevada	Open Land	0.25
230.9	Staging Area	Elko	Nevada	Open Land	0.62

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
231.4	Extra Workspace	Elko	Nevada	Open Land	13.56
231.5	Extra Workspace	Elko	Nevada	Forest	0.21
232.1	Extra Workspace	Elko	Nevada	Forest	0.06
232.2	Extra Workspace	Elko	Nevada	Open Land	0.05
232.3	Extra Workspace	Elko	Nevada	Forest	1.87
232.3	Extra Workspace	Elko	Nevada	Open Land	0.23
232.4	Extra Workspace	Elko	Nevada	Forest	2.78
232.4	Extra Workspace	Elko	Nevada	Open Land	0.35
232.7	Extra Workspace	Elko	Nevada	Forest	0.22
232.8	Extra Workspace	Elko	Nevada	Forest	0.34
232.9	Extra Workspace	Elko	Nevada	Forest	0.02
233.1	Extra Workspace	Elko	Nevada	Forest	0.04
233.5	Extra Workspace	Elko	Nevada	Forest	0.02
234.1	Extra Workspace	Elko	Nevada	Forest	0.09
234.2	Extra Workspace	Elko	Nevada	Forest	0.27
235.0	Extra Workspace	Elko	Nevada	Open Land	20.15
235.1	Extra Workspace	Elko	Nevada	Forest	0.23
235.1	Extra Workspace	Elko	Nevada	Open Land	21.19
235.4	Extra Workspace	Elko	Nevada	Open Land	0.18
235.4	Staging Area	Elko	Nevada	Open Land	0.62
236.2	Extra Workspace	Elko	Nevada	Open Land	1.95
236.6	Extra Workspace	Elko	Nevada	Open Land	0.18
236.6	Staging Area	Elko	Nevada	Open Land	0.62
237.1	Extra Workspace	Elko	Nevada	Open Land	0.37
237.2	Extra Workspace	Elko	Nevada	Open Land	0.17
237.3	Extra Workspace	Elko	Nevada	Open Land	0.37

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
239.1	Extra Workspace	Elko	Nevada	Agriculture	0.22
239.1	Extra Workspace	Elko	Nevada	Developed	0.36
239.2	Staging Area	Elko	Nevada	Developed	0.22
239.2	Staging Area	Elko	Nevada	Open Land	0.00
239.4	Extra Workspace	Elko	Nevada	Agriculture	0.85
239.4	Extra Workspace	Elko	Nevada	Open Land	0.87
239.5	Extra Workspace	Elko	Nevada	Agriculture	0.22
241.0	Extra Workspace	Elko	Nevada	Open Land	0.14
241.1	Extra Workspace	Elko	Nevada	Open Land	0.58
241.1	Staging Area	Elko	Nevada	Agriculture	0.19
241.1	Staging Area	Elko	Nevada	Open Land	0.08
242.9	Extra Workspace	Elko	Nevada	Open Land	2.41
244.0	Extra Workspace	Elko	Nevada	Open Land	26.43
244.1	Extra Workspace	Elko	Nevada	Open Land	25.03
244.6	Extra Workspace	Elko	Nevada	Open Land	0.18
244.6	Staging Area	Elko	Nevada	Open Land	0.62
245.1	Extra Workspace	Elko	Nevada	Forest	0.15
245.2	Extra Workspace	Elko	Nevada	Forest	0.44
245.5	Extra Workspace	Elko	Nevada	Forest	0.05
245.6	Extra Workspace	Elko	Nevada	Forest	0.39
245.8	Extra Workspace	Elko	Nevada	Forest	0.24
247.6	Extra Workspace	Elko	Nevada	Open Land	1.59
248.2	Extra Workspace	Elko	Nevada	Open Land	8.44
248.4	Extra Workspace	Elko	Nevada	Open Land	0.12
248.5	Extra Workspace	Elko	Nevada	Open Land	0.15
250.3	Extra Workspace	Elko	Nevada	Open Land	0.03
250.3	Staging Area	Elko	Nevada	Open Land	0.08

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
250.4	Extra Workspace	Elko	Nevada	Open Land	0.15
250.4	Staging Area	Elko	Nevada	Open Land	0.69
250.5	Extra Workspace	Elko	Nevada	Open Land	0.06
250.9	Extra Workspace	Elko	Nevada	Open Land	2.62
251.1	Extra Workspace	Elko	Nevada	Open Land	7.00
251.2	Extra Workspace	Elko	Nevada	Open Land	4.64
253.1	Extra Workspace	Elko	Nevada	Open Land	3.24
253.2	Extra Workspace	Elko	Nevada	Open Land	7.94
254.3	Extra Workspace	Elko	Nevada	Open Land	1.07
254.4	Extra Workspace	Elko	Nevada	Forest	0.11
254.7	Extra Workspace	Elko	Nevada	Open Land	0.33
254.9	Extra Workspace	Elko	Nevada	Open Land	7.08
255.0	Extra Workspace	Elko	Nevada	Open Land	6.46
258.1	Extra Workspace	Elko	Nevada	Open Land	2.23
260.7	Extra Workspace	Elko	Nevada	Open Land	0.18
264.7	Extra Workspace	Elko	Nevada	Open Land	4.79
266.6	Extra Workspace	Elko	Nevada	Open Land	0.18
270.5	Extra Workspace	Elko	Nevada	Developed	0.59
270.6	Extra Workspace	Elko	Nevada	Open Land	0.41
271.5	Staging Area	Elko	Nevada	Open Land	0.70
271.6	Staging Area	Elko	Nevada	Open Land	0.11
273.0	Extra Workspace	Elko	Nevada	Open Land	0.47
273.5	Extra Workspace	Elko	Nevada	Open Land	17.58
273.6	Extra Workspace	Elko	Nevada	Open Land	19.26
274.5	Extra Workspace	Elko	Nevada	Open Land	2.12
275.8	Extra Workspace	Elko	Nevada	Open Land	1.35

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
275.9	Extra Workspace	Elko	Nevada	Open Land	0.24
278.0	Extra Workspace	Elko	Nevada	Open Land	0.18
280.0	Extra Workspace	Elko	Nevada	Open Land	0.26
280.2	Extra Workspace	Elko	Nevada	Open Land	0.03
280.4	Extra Workspace	Elko	Nevada	Open Land	4.36
280.5	Extra Workspace	Elko	Nevada	Open Land	4.14
280.7	Extra Workspace	Elko	Nevada	Open Land	0.18
280.7	Staging Area	Elko	Nevada	Open Land	0.62
281.6	Extra Workspace	Elko	Nevada	Open Land	1.70
282.6	Extra Workspace	Elko	Nevada	Open Land	15.34
282.7	Extra Workspace	Elko	Nevada	Open Land	14.64
283.1	Extra Workspace	Elko	Nevada	Open Land	0.42
284.7	Extra Workspace	Elko	Nevada	Open Land	6.57
285.5	Extra Workspace	Elko	Nevada	Open Land	9.09
285.9	Extra Workspace	Elko	Nevada	Open Land	0.03
287.2	Extra Workspace	Elko	Nevada	Open Land	9.73
288.3	Extra Workspace	Elko	Nevada	Open Land	7.88
288.6	Extra Workspace	Elko	Nevada	Open Land	0.45
289.3	Extra Workspace	Elko	Nevada	Open Land	1.87
289.7	Extra Workspace	Elko	Nevada	Open Land	0.15
290.3	Extra Workspace	Elko	Nevada	Open Land	12.57
291.6	Extra Workspace	Elko	Nevada	Open Land	0.80
291.8	Extra Workspace	Elko	Nevada	Open Land	1.22
291.9	Extra Workspace	Elko	Nevada	Open Land	0.00
292.4	Staging Area	Elko	Nevada	Developed	0.07
292.5	Staging Area	Elko	Nevada	Developed	0.58
292.5	Staging Area	Elko	Nevada	Open Land	0.00

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
292.7	Extra Workspace	Elko	Nevada	Agriculture	0.00
292.7	Extra Workspace	Elko	Nevada	Developed	0.24
292.7	Extra Workspace	Elko	Nevada	Open Land	0.51
292.8	Extra Workspace	Elko	Nevada	Agriculture	0.63
292.8	Extra Workspace	Elko	Nevada	Developed	0.23
292.8	Extra Workspace	Elko	Nevada	Open Land	0.16
293.2	Staging Area	Elko	Nevada	Agriculture	1.23
293.2	Staging Area	Elko	Nevada	Developed	0.71
296.4	Extra Workspace	Elko	Nevada	Open Land	0.24
299.9	Extra Workspace	Elko	Nevada	Open Land	1.05
300.1	Extra Workspace	Elko	Nevada	Open Land	1.88
300.1	Extra Workspace	Elko	Nevada	Wetland	0.01
300.5	Extra Workspace	Elko	Nevada	Open Land	0.96
301.6	Extra Workspace	Elko	Nevada	Open Land	0.18
304.8	Extra Workspace	Elko	Nevada	Open Land	3.29
306.4	Extra Workspace	Elko	Nevada	Open Land	24.57
307.7	Extra Workspace	Elko	Nevada	Developed	0.47
307.7	Extra Workspace	Elko	Nevada	Open Land	0.10
307.7	Staging Area	Elko	Nevada	Developed	0.48
307.7	Staging Area	Elko	Nevada	Open Land	0.14
308.8	Extra Workspace	Elko	Nevada	Open Land	1.38
311.4	Extra Workspace	Elko	Nevada	Open Land	0.18
312.6	Extra Workspace	Elko	Nevada	Open Land	0.59
314.8	Extra Workspace	Elko	Nevada	Open Land	0.18
315.6	Extra Workspace	Elko	Nevada	Open Land	0.06
315.7	Extra Workspace	Elko	Nevada	Open Land	0.18
315.7	Staging Area	Elko	Nevada	Open Land	0.62

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
316.0	Extra Workspace	Elko	Nevada	Open Land	7.46
317.6	Extra Workspace	Elko	Nevada	Open Land	23.10
318.7	Extra Workspace	Elko	Nevada	Open Land	0.06
318.8	Extra Workspace	Elko	Nevada	Open Land	0.14
320.0	Extra Workspace	Elko	Nevada	Open Land	5.49
322.0	Extra Workspace	Elko	Nevada	Open Land	0.18
322.2	Extra Workspace	Elko	Nevada	Open Land	24.75
323.5	Extra Workspace	Elko	Nevada	Open Land	0.10
323.5	Staging Area	Elko	Nevada	Open Land	0.71
323.9	Extra Workspace	Elko	Nevada	Open Land	0.31
324.7	Extra Workspace	Elko	Nevada	Open Land	9.39
326.0	Extra Workspace	Elko	Nevada	Open Land	4.84
327.0	Extra Workspace	Elko	Nevada	Open Land	6.88
327.4	Extra Workspace	Elko	Nevada	Open Land	0.04
327.4	Staging Area	Elko	Nevada	Open Land	0.77
327.6	Extra Workspace	Elko	Nevada	Open Land	0.05
327.7	Extra Workspace	Elko	Nevada	Open Land	1.76
328.0	Extra Workspace	Elko	Nevada	Open Land	2.76
328.7	Extra Workspace	Elko	Nevada	Open Land	2.35
328.8	Extra Workspace	Elko	Nevada	Open Land	0.06
329.0	Extra Workspace	Elko	Nevada	Open Land	0.97
329.5	Extra Workspace	Elko	Nevada	Open Land	0.78
330.3	Staging Area	Elko	Nevada	Open Land	0.65
331.3	Extra Workspace	Elko	Nevada	Open Land	1.83
331.9	Extra Workspace	Elko	Nevada	Open Land	3.82
332.7	Extra Workspace	Elko	Nevada	Open Land	0.07

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
332.9	Extra Workspace	Elko	Nevada	Open Land	3.95
333.0	Extra Workspace	Elko	Nevada	Open Land	3.91
333.8	Extra Workspace	Elko	Nevada	Open Land	2.34
333.9	Extra Workspace	Elko	Nevada	Open Land	0.25
334.2	Staging Area	Elko	Nevada	Open Land	0.80
335.5	Extra Workspace	Elko	Nevada	Open Land	1.67
336.0	Extra Workspace	Elko	Nevada	Open Land	4.26
336.1	Extra Workspace	Elko	Nevada	Open Land	0.05
336.2	Extra Workspace	Elko	Nevada	Open Land	0.01
336.5	Extra Workspace	Elko	Nevada	Open Land	2.19
336.9	Extra Workspace	Elko	Nevada	Open Land	0.68
337.0	Extra Workspace	Elko	Nevada	Open Land	0.05
338.0	Extra Workspace	Elko	Nevada	Open Land	0.07
338.1	Extra Workspace	Elko	Nevada	Open Land	1.54
338.7	Extra Workspace	Elko	Nevada	Open Land	0.09
338.8	Extra Workspace	Elko	Nevada	Open Land	3.26
339.0	Extra Workspace	Elko	Nevada	Developed	0.55
339.0	Extra Workspace	Elko	Nevada	Open Land	0.08
339.0	Staging Area	Elko	Nevada	Developed	0.39
339.0	Staging Area	Elko	Nevada	Open Land	0.23
339.1	Extra Workspace	Elko	Nevada	Open Land	0.00
339.1	Staging Area	Elko	Nevada	Open Land	0.02
340.3	Extra Workspace	Elko	Nevada	Open Land	0.04
340.6	Extra Workspace	Elko	Nevada	Open Land	11.92
342.8	Staging Area	Elko	Nevada	Open Land	0.80
343.1	Extra Workspace	Elko	Nevada	Open Land	4.30
344.7	Extra Workspace	Elko	Nevada	Open Land	0.03

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
344.8	Extra Workspace	Elko	Nevada	Open Land	8.05
345.6	Extra Workspace	Elko	Nevada	Open Land	1.53
345.7	Extra Workspace	Elko	Nevada	Open Land	1.91
345.7	Staging Area	Elko	Nevada	Open Land	0.62
347.9	Extra Workspace	Elko	Nevada	Forest	0.17
348.0	Extra Workspace	Elko	Nevada	Forest	0.76
348.1	Extra Workspace	Elko	Nevada	Forest	0.07
348.2	Extra Workspace	Elko	Nevada	Forest	0.70
348.2	Extra Workspace	Elko	Nevada	Open Land	0.04
348.3	Extra Workspace	Elko	Nevada	Forest	0.27
348.7	Extra Workspace	Elko	Nevada	Open Land	51.01
349.2	Extra Workspace	Elko	Nevada	Forest	0.35
349.8	Extra Workspace	Elko	Nevada	Forest	0.10
351.7	Extra Workspace	Elko	Nevada	Open Land	4.78
351.8	Extra Workspace	Elko	Nevada	Open Land	0.05
352.5	Staging Area	Elko	Nevada	Open Land	0.94
353.0	Extra Workspace	Elko	Nevada	Open Land	1.24
353.1	Extra Workspace	Elko	Nevada	Open Land	0.01
353.6	Extra Workspace	Elko	Nevada	Open Land	1.47
354.5	Staging Area	Elko	Nevada	Open Land	0.94
354.9	Extra Workspace	Elko	Nevada	Open Land	7.42
355.2	Extra Workspace	Elko	Nevada	Forest	0.32
355.3	Extra Workspace	Elko	Nevada	Open Land	0.18
355.3	Staging Area	Elko	Nevada	Open Land	0.75
355.6	Extra Workspace	Elko	Nevada	Open Land	2.86
356.4	Extra Workspace	Elko	Nevada	Open Land	0.03
356.9	Extra Workspace	Elko	Nevada	Open Land	10.34

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
357.7	Extra Workspace	Elko	Nevada	Developed	0.50
357.7	Extra Workspace	Elko	Nevada	Open Land	0.45
357.7	Staging Area	Elko	Nevada	Developed	0.45
357.7	Staging Area	Elko	Nevada	Open Land	0.81
357.8	Extra Workspace	Elko	Nevada	Wetland	0.02
357.9	Extra Workspace	Elko	Nevada	Open Land	0.03
358.1	Extra Workspace	Elko	Nevada	Open Land	0.21
358.7	Extra Workspace	Elko	Nevada	Open Land	18.08
359.8	Extra Workspace	Elko	Nevada	Open Land	2.28
361.0	Extra Workspace	Elko	Nevada	Open Land	21.26
361.3	Extra Workspace	Elko	Nevada	Open Land	0.07
361.5	Extra Workspace	Elko	Nevada	Wetland	0.12
362.3	Extra Workspace	Elko	Nevada	Open Land	0.18
362.3	Staging Area	Elko	Nevada	Open Land	0.76
363.1	Extra Workspace	Elko	Nevada	Open Land	18.25
363.3	Extra Workspace	Elko	Nevada	Open Land	0.16
363.8	Extra Workspace	Elko	Nevada	Open Land	0.18
363.8	Staging Area	Elko	Nevada	Open Land	0.76
364.1	Extra Workspace	Elko	Nevada	Developed	0.42
364.2	Extra Workspace	Elko	Nevada	Open Land	1.48
364.3	Extra Workspace	Elko	Nevada	Open Land	0.07
365.1	Extra Workspace	Elko	Nevada	Open Land	9.51
366.2	Extra Workspace	Elko	Nevada	Open Land	2.52
367.2	Extra Workspace	Elko	Nevada	Open Land	1.74
368.1	Extra Workspace	Elko	Nevada	Open Land	1.47
368.2	Extra Workspace	Elko	Nevada	Open Land	0.07
368.2	Extra Workspace	Elko	Nevada	Wetland	0.03

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
368.4	Extra Workspace	Elko	Nevada	Open Land	3.74
370.2	Extra Workspace	Elko	Nevada	Open Land	7.08
370.6	Extra Workspace	Elko	Nevada	Open Land	0.44
371.4	Extra Workspace	Elko	Nevada	Open Land	0.19
371.4	Staging Area	Elko	Nevada	Open Land	0.77
371.7	Extra Workspace	Elko	Nevada	Open Land	0.16
371.8	Extra Workspace	Elko	Nevada	Open Land	0.17
371.9	Extra Workspace	Elko	Nevada	Open Land	14.77
372.1	Extra Workspace	Elko	Nevada	Open Land	0.09
372.7	Staging Area	Elko	Nevada	Open Land	0.94
373.0	Extra Workspace	Elko	Nevada	Open Land	2.96
373.1	Extra Workspace	Elko	Nevada	Open Land	0.30
373.2	Extra Workspace	Elko	Nevada	Open Land	0.19
373.2	Staging Area	Elko	Nevada	Open Land	0.77
373.6	Extra Workspace	Elko	Nevada	Developed	0.06
373.6	Extra Workspace	Elko	Nevada	Open Land	0.28
373.7	Extra Workspace	Elko	Nevada	Developed	1.06
373.7	Extra Workspace	Elko	Nevada	Open Land	0.46
374.4	Extra Workspace	Elko	Nevada	Open Land	3.33
374.5	Extra Workspace	Elko	Nevada	Open Land	0.08
377.5	Extra Workspace	Elko	Nevada	Developed	0.88
377.5	Extra Workspace	Elko	Nevada	Open Land	0.68
377.6	Extra Workspace	Elko	Nevada	Open Land	0.28
377.8	Staging Area	Elko	Nevada	Developed	0.19
377.8	Staging Area	Elko	Nevada	Open Land	0.76
378.7	Staging Area	Elko	Nevada	Open Land	0.01
378.8	Staging Area	Elko	Nevada	Developed	0.75
378.8	Staging Area	Elko	Nevada	Open Land	0.18

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
380.3	Extra Workspace	Elko	Nevada	Open Land	0.04
380.4	Extra Workspace	Elko	Nevada	Open Land	0.80
380.9	Extra Workspace	Elko	Nevada	Open Land	1.21
381.1	Extra Workspace	Elko	Nevada	Open Land	0.30
381.2	Extra Workspace	Elko	Nevada	Open Land	0.45
381.3	Extra Workspace	Elko	Nevada	Open Land	0.06
381.6	Extra Workspace	Elko	Nevada	Developed	2.15
381.9	Extra Workspace	Elko	Nevada	Open Land	0.49
382.0	Extra Workspace	Elko	Nevada	Open Land	12.11
382.7	Extra Workspace	Elko	Nevada	Open Land	0.56
382.8	Extra Workspace	Elko	Nevada	Open Land	0.16
384.1	Extra Workspace	Elko	Nevada	Developed	0.83
384.1	Extra Workspace	Elko	Nevada	Open Land	0.09
384.5	Extra Workspace	Elko	Nevada	Open Land	6.69
384.8	Extra Workspace	Elko	Nevada	Open Land	0.03
384.8	Extra Workspace	Elko	Nevada	Wetland	0.06
385.2	Extra Workspace	Elko	Nevada	Open Land	2.18
386.4	Extra Workspace	Elko	Nevada	Open Land	0.36
386.7	Extra Workspace	Elko	Nevada	Open Land	3.26
386.9	Extra Workspace	Elko	Nevada	Open Land	0.85
387.2	Extra Workspace	Elko	Nevada	Open Land	0.84
387.4	Extra Workspace	Elko	Nevada	Open Land	0.09
387.5	Extra Workspace	Elko	Nevada	Open Land	0.37
387.7	Extra Workspace	Elko	Nevada	Open Land	13.02
387.8	Extra Workspace	Elko	Nevada	Open Land	0.17

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
387.9	Extra Workspace	Elko	Nevada	Open Land	0.06
392.1	Extra Workspace	Elko	Nevada	Open Land	0.55
393.7	Extra Workspace	Elko	Nevada	Developed	0.24
393.7	Extra Workspace	Elko	Nevada	Open Land	0.26
395.7	Extra Workspace	Elko	Nevada	Developed	0.00
395.7	Extra Workspace	Elko	Nevada	Open Land	0.09
398.3	Extra Workspace	Humboldt	Nevada	Open Land	1.12
401.0	Extra Workspace	Humboldt	Nevada	Open Land	0.18
403.7	Extra Workspace	Humboldt	Nevada	Developed	0.08
403.7	Extra Workspace	Humboldt	Nevada	Open Land	1.07
403.8	Extra Workspace	Humboldt	Nevada	Open Land	0.03
404.5	Extra Workspace	Humboldt	Nevada	Open Land	0.37
406.5	Extra Workspace	Humboldt	Nevada	Developed	0.02
406.5	Extra Workspace	Humboldt	Nevada	Open Land	0.16
407.7	Extra Workspace	Humboldt	Nevada	Developed	1.02
407.7	Extra Workspace	Humboldt	Nevada	Open Land	1.11
407.8	Extra Workspace	Humboldt	Nevada	Open Land	0.36
408.6	Staging Area	Humboldt	Nevada	Developed	0.38
408.6	Staging Area	Humboldt	Nevada	Open Land	0.56
410.8	Extra Workspace	Humboldt	Nevada	Open Land	0.98
411.2	Extra Workspace	Humboldt	Nevada	Developed	0.34
411.2	Extra Workspace	Humboldt	Nevada	Open Land	0.25
411.3	Extra Workspace	Humboldt	Nevada	Developed	0.47
411.3	Extra Workspace	Humboldt	Nevada	Open Land	0.47
412.9	Extra Workspace	Humboldt	Nevada	Open Land	0.77
416.2	Extra Workspace	Humboldt	Nevada	Open Land	0.13

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
416.2	Staging Area	Humboldt	Nevada	Open Land	0.68
417.8	Extra Workspace	Humboldt	Nevada	Open Land	0.40
418.0	Extra Workspace	Humboldt	Nevada	Open Land	16.13
418.1	Extra Workspace	Humboldt	Nevada	Open Land	16.43
418.2	Extra Workspace	Humboldt	Nevada	Open Land	0.46
418.3	Extra Workspace	Humboldt	Nevada	Open Land	0.86
418.5	Extra Workspace	Humboldt	Nevada	Open Land	0.12
418.6	Extra Workspace	Humboldt	Nevada	Open Land	0.09
418.7	Extra Workspace	Humboldt	Nevada	Open Land	1.22
418.8	Extra Workspace	Humboldt	Nevada	Open Land	0.73
419.0	Extra Workspace	Humboldt	Nevada	Open Land	0.10
419.6	Extra Workspace	Humboldt	Nevada	Open Land	0.27
419.7	Extra Workspace	Humboldt	Nevada	Open Land	0.09
420.1	Staging Area	Humboldt	Nevada	Open Land	0.80
421.1	Extra Workspace	Humboldt	Nevada	Open Land	0.27
421.2	Extra Workspace	Humboldt	Nevada	Open Land	0.82
421.7	Extra Workspace	Humboldt	Nevada	Open Land	0.78
424.2	Extra Workspace	Humboldt	Nevada	Open Land	0.49
425.1	Extra Workspace	Humboldt	Nevada	Open Land	0.18
428.8	Extra Workspace	Humboldt	Nevada	Open Land	0.98
432.3	Extra Workspace	Humboldt	Nevada	Open Land	0.18
435.3	Extra Workspace	Humboldt	Nevada	Developed	0.02
435.3	Extra Workspace	Humboldt	Nevada	Open Land	0.16
437.9	Staging Area	Humboldt	Nevada	Open Land	3.13
438.6	Extra Workspace	Humboldt	Nevada	Open Land	0.70
438.6	Extra Workspace	Humboldt	Nevada	Open Land	6.94

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
438.7	Extra Workspace	Humboldt	Nevada	Developed	0.94
438.7	Staging Area	Humboldt	Nevada	Developed	2.53
438.8	Extra Workspace	Humboldt	Nevada	Developed	0.09
438.8	Extra Workspace	Humboldt	Nevada	Open Land	0.66
438.8	Staging Area	Humboldt	Nevada	Developed	0.35
438.8	Staging Area	Humboldt	Nevada	Open Land	1.45
438.9	Extra Workspace	Humboldt	Nevada	Open Land	0.09
438.9	Staging Area	Humboldt	Nevada	Developed	0.42
438.9	Staging Area	Humboldt	Nevada	Open Land	0.81
443.1	Extra Workspace	Humboldt	Nevada	Open Land	0.75
443.3	Extra Workspace	Humboldt	Nevada	Open Land	15.28
444.0	Extra Workspace	Humboldt	Nevada	Open Land	0.38
444.5	Extra Workspace	Humboldt	Nevada	Open Land	6.60
444.9	Extra Workspace	Humboldt	Nevada	Open Land	1.41
446.2	Extra Workspace	Humboldt	Nevada	Open Land	0.57
447.9	Extra Workspace	Humboldt	Nevada	Open Land	0.18
449.8	Extra Workspace	Humboldt	Nevada	Open Land	0.60
451.3	Extra Workspace	Humboldt	Nevada	Open Land	0.74
452.3	Extra Workspace	Humboldt	Nevada	Open Land	0.54
452.4	Extra Workspace	Humboldt	Nevada	Open Land	0.30
454.2	Extra Workspace	Humboldt	Nevada	Open Land	0.18
456.0	Extra Workspace	Humboldt	Nevada	Open Land	1.13
458.1	Extra Workspace	Humboldt	Nevada	Open Land	0.18
460.2	Extra Workspace	Humboldt	Nevada	Open Land	0.67
463.1	Extra Workspace	Humboldt	Nevada	Open Land	0.91
465.3	Extra Workspace	Humboldt	Nevada	Open Land	0.86
467.3	Extra Workspace	Humboldt	Nevada	Open Land	0.67

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
469.8	Extra Workspace	Humboldt	Nevada	Open Land	0.21
469.9	Extra Workspace	Humboldt	Nevada	Open Land	0.66
470.1	Extra Workspace	Humboldt	Nevada	Open Land	2.05
473.2	Extra Workspace	Humboldt	Nevada	Open Land	0.18
476.3	Extra Workspace	Humboldt	Nevada	Open Land	0.55
479.1	Extra Workspace	Humboldt	Nevada	Open Land	2.15
480.6	Extra Workspace	Humboldt	Nevada	Open Land	0.53
483.0	Extra Workspace	Humboldt	Nevada	Open Land	1.02
486.0	Extra Workspace	Humboldt	Nevada	Open Land	0.06
486.1	Extra Workspace	Humboldt	Nevada	Open Land	27.14
487.7	Extra Workspace	Humboldt	Nevada	Open Land	0.32
487.9	Extra Workspace	Humboldt	Nevada	Open Land	2.02
488.0	Extra Workspace	Humboldt	Nevada	Open Land	0.24
489.5	Extra Workspace	Humboldt	Nevada	Agriculture	0.19
489.5	Extra Workspace	Humboldt	Nevada	Open Land	0.14
490.1	Extra Workspace	Humboldt	Nevada	Agriculture	0.18
490.1	Extra Workspace	Humboldt	Nevada	Open Land	0.34
491.2	Extra Workspace	Humboldt	Nevada	Open Land	0.18
493.2	Extra Workspace	Humboldt	Nevada	Open Land	1.10
495.3	Extra Workspace	Humboldt	Nevada	Open Land	0.18
495.6	Extra Workspace	Humboldt	Nevada	Open Land	0.18
497.4	Extra Workspace	Humboldt	Nevada	Open Land	0.37
497.6	Extra Workspace	Humboldt	Nevada	Open Land	0.18
497.7	Extra Workspace	Humboldt	Nevada	Open Land	0.19
499.5	Extra Workspace	Humboldt	Nevada	Open Land	0.18

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
500.6	Extra Workspace	Humboldt	Nevada	Open Land	0.13
500.9	Extra Workspace	Humboldt	Nevada	Open Land	8.83
501.8	Extra Workspace	Humboldt	Nevada	Open Land	0.78
502.4	Staging Area	Humboldt	Nevada	Agriculture	0.70
502.4	Staging Area	Humboldt	Nevada	Open Land	0.26
502.5	Extra Workspace	Humboldt	Nevada	Agriculture	0.83
502.5	Extra Workspace	Humboldt	Nevada	Open Land	0.27
502.6	Extra Workspace	Humboldt	Nevada	Agriculture	0.66
502.6	Extra Workspace	Humboldt	Nevada	Open Land	0.03
503.1	Extra Workspace	Humboldt	Nevada	Open Land	0.77
504.3	Extra Workspace	Humboldt	Nevada	Open Land	1.10
505.5	Extra Workspace	Humboldt	Nevada	Open Land	3.91
506.0	Extra Workspace	Humboldt	Nevada	Open Land	0.21
506.0	Staging Area	Humboldt	Nevada	Open Land	0.62
506.6	Extra Workspace	Humboldt	Nevada	Open Land	0.14
506.7	Extra Workspace	Humboldt	Nevada	Open Land	0.78
507.0	Extra Workspace	Humboldt	Nevada	Open Land	1.43
507.2	Extra Workspace	Humboldt	Nevada	Open Land	0.27
507.5	Extra Workspace	Humboldt	Nevada	Open Land	0.30
507.8	Extra Workspace	Humboldt	Nevada	Open Land	0.27
509.8	Extra Workspace	Humboldt	Nevada	Open Land	1.02
509.8	Staging Area	Humboldt	Nevada	Open Land	0.62
509.9	Extra Workspace	Humboldt	Nevada	Open Land	0.12
509.9	Staging Area	Humboldt	Nevada	Open Land	9.86
510.0	Extra Workspace	Humboldt	Nevada	Open Land	0.01
510.7	Extra Workspace	Humboldt	Nevada	Open Land	0.23
510.8	Extra Workspace	Humboldt	Nevada	Open Land	0.22

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
510.9	Extra Workspace	Humboldt	Nevada	Wetland	0.00
511.7	Extra Workspace	Humboldt	Nevada	Open Land	0.03
514.4	Extra Workspace	Humboldt	Nevada	Open Land	42.46
514.5	Extra Workspace	Humboldt	Nevada	Open Land	42.54
515.8	Extra Workspace	Humboldt	Nevada	Open Land	0.24
517.5	Extra Workspace	Humboldt	Nevada	Open Land	0.18
517.5	Staging Area	Humboldt	Nevada	Open Land	0.62
518.8	Extra Workspace	Humboldt	Nevada	Open Land	0.18
518.8	Staging Area	Humboldt	Nevada	Open Land	0.62
519.8	Extra Workspace	Humboldt	Nevada	Open Land	0.61
520.5	Extra Workspace	Humboldt	Nevada	Open Land	0.43
520.7	Extra Workspace	Humboldt	Nevada	Open Land	0.26
521.5	Extra Workspace	Humboldt	Nevada	Open Land	25.89
523.2	Extra Workspace	Humboldt	Nevada	Open Land	2.06
524.1	Extra Workspace	Humboldt	Nevada	Open Land	0.20
524.2	Extra Workspace	Humboldt	Nevada	Open Land	0.62
525.0	Extra Workspace	Humboldt	Nevada	Open Land	0.27
525.1	Extra Workspace	Humboldt	Nevada	Open Land	0.94
525.2	Extra Workspace	Humboldt	Nevada	Open Land	2.43
526.2	Extra Workspace	Humboldt	Nevada	Open Land	3.34
526.7	Extra Workspace	Humboldt	Nevada	Open Land	0.03
526.8	Extra Workspace	Humboldt	Nevada	Open Land	0.42
526.9	Extra Workspace	Humboldt	Nevada	Open Land	4.33
527.6	Extra Workspace	Humboldt	Nevada	Open Land	2.10
527.7	Extra Workspace	Humboldt	Nevada	Open Land	0.07
528.2	Staging Area	Humboldt	Nevada	Open Land	0.80

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
528.7	Extra Workspace	Humboldt	Nevada	Open Land	0.00
528.8	Extra Workspace	Humboldt	Nevada	Open Land	0.12
529.0	Extra Workspace	Humboldt	Nevada	Open Land	0.10
529.6	Extra Workspace	Humboldt	Nevada	Open Land	24.75
531.7	Extra Workspace	Humboldt	Nevada	Open Land	0.09
531.9	Extra Workspace	Humboldt	Nevada	Open Land	11.29
532.5	Extra Workspace	Humboldt	Nevada	Open Land	0.14
532.5	Staging Area	Humboldt	Nevada	Open Land	0.69
533.1	Extra Workspace	Humboldt	Nevada	Open Land	1.86
534.5	Extra Workspace	Humboldt	Nevada	Open Land	2.55
535.0	Extra Workspace	Humboldt	Nevada	Open Land	2.06
535.0	Extra Workspace	Humboldt	Nevada	Wetland	0.17
536.0	Extra Workspace	Washoe	Nevada	Open Land	0.06
536.2	Extra Workspace	Washoe	Nevada	Open Land	5.56
537.1	Extra Workspace	Washoe	Nevada	Open Land	5.81
538.0	Extra Workspace	Washoe	Nevada	Open Land	0.80
538.3	Extra Workspace	Washoe	Nevada	Open Land	0.90
538.7	Extra Workspace	Washoe	Nevada	Open Land	3.81
538.9	Extra Workspace	Washoe	Nevada	Open Land	0.06
539.6	Extra Workspace	Washoe	Nevada	Open Land	0.78
540.4	Extra Workspace	Washoe	Nevada	Open Land	13.76
542.5	Extra Workspace	Washoe	Nevada	Open Land	10.51
542.6	Extra Workspace	Washoe	Nevada	Open Land	0.27
	Staging Area	Washoe	Nevada	Open Land	0.62
542.8	Extra Workspace	Washoe	Nevada	Open Land	0.11
543.7	Extra Workspace	Washoe	Nevada	Open Land	8.98

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
545.3	Extra Workspace	Washoe	Nevada	Open Land	12.78
545.8	Extra Workspace	Washoe	Nevada	Open Land	0.03
546.8	Extra Workspace	Washoe	Nevada	Open Land	1.18
547.7	Extra Workspace	Washoe	Nevada	Open Land	2.49
547.8	Extra Workspace	Washoe	Nevada	Open Land	0.06
548.8	Extra Workspace	Washoe	Nevada	Open Land	2.32
549.9	Extra Workspace	Washoe	Nevada	Open Land	0.90
	Staging Area	Washoe	Nevada	Open Land	9.54
550.5	Extra Workspace	Washoe	Nevada	Open Land	1.01
551.2	Extra Workspace	Washoe	Nevada	Developed	0.54
551.2	Extra Workspace	Washoe	Nevada	Open Land	0.10
551.3	Extra Workspace	Washoe	Nevada	Open Land	0.42
553.5	Extra Workspace	Washoe	Nevada	Open Land	0.88
555.7	Extra Workspace	Washoe	Nevada	Open Land	0.18
557.7	Extra Workspace	Washoe	Nevada	Open Land	1.42
559.6	Extra Workspace	Washoe	Nevada	Open Land	0.92
561.9	Extra Workspace	Washoe	Nevada	Open Land	0.07
562.0	Extra Workspace	Washoe	Nevada	Open Land	0.78
564.2	Extra Workspace	Washoe	Nevada	Open Land	0.92
566.1	Extra Workspace	Washoe	Nevada	Open Land	0.18
568.3	Extra Workspace	Washoe	Nevada	Open Land	0.18
571.4	Extra Workspace	Washoe	Nevada	Open Land	0.40
571.5	Extra Workspace	Washoe	Nevada	Open Land	0.43
572.5	Extra Workspace	Washoe	Nevada	Open Land	0.18
572.5	Staging Area	Washoe	Nevada	Open Land	0.62
573.0	Extra Workspace	Washoe	Nevada	Open Land	9.88

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
573.4	Extra Workspace	Washoe	Nevada	Forest	0.05
574.0	Staging Area	Washoe	Nevada	Forest	0.35
574.0	Staging Area	Washoe	Nevada	Open Land	0.37
574.0	Staging Area	Washoe	Nevada	Wetland	0.09
574.2	Extra Workspace	Washoe	Nevada	Forest	0.68
574.7	Extra Workspace	Washoe	Nevada	Open Land	0.06
574.8	Extra Workspace	Washoe	Nevada	Open Land	12.18
575.9	Extra Workspace	Washoe	Nevada	Forest	0.28
575.9	Extra Workspace	Washoe	Nevada	Open Land	0.07
576.1	Extra Workspace	Washoe	Nevada	Open Land	4.80
578.9	Extra Workspace	Washoe	Nevada	Open Land	0.18
579.6	Extra Workspace	Washoe	Nevada	Forest	0.39
579.7	Extra Workspace	Washoe	Nevada	Open Land	0.72
581.9	Extra Workspace	Washoe	Nevada	Open Land	0.83
585.0	Extra Workspace	Washoe	Nevada	Open Land	0.37
586.9	Staging Area	Washoe	Nevada	Open Land	5.97
588.1	Extra Workspace	Lake	Oregon	Open Land	1.62
588.1	Staging Area	Lake	Oregon	Open Land	1.48
588.2	Extra Workspace	Lake	Oregon	Forest	0.50
588.3	Extra Workspace	Lake	Oregon	Forest	0.99
588.5	Extra Workspace	Lake	Oregon	Open Land	2.67
588.5	Staging Area	Lake	Oregon	Open Land	1.33
589.3	Extra Workspace	Lake	Oregon	Open Land	5.11
589.5	Extra Workspace	Lake	Oregon	Open Land	0.10
590.5	Extra Workspace	Lake	Oregon	Open Land	5.55
590.9	Extra Workspace	Lake	Oregon	Open Land	0.81
593.0	Extra Workspace	Lake	Oregon	Open Land	4.47

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
594.3	Extra Workspace	Lake	Oregon	Open Land	3.08
595.8	Extra Workspace	Lake	Oregon	Open Land	0.86
596.0	Extra Workspace	Lake	Oregon	Forest	0.36
596.0	Extra Workspace	Lake	Oregon	Open Land	0.45
596.0	Extra Workspace	Lake	Oregon	Wetland	0.15
596.1	Extra Workspace	Lake	Oregon	Open Land	0.47
596.4	Extra Workspace	Lake	Oregon	Forest	0.05
596.5	Extra Workspace	Lake	Oregon	Forest	0.12
596.7	Extra Workspace	Lake	Oregon	Open Land	3.29
596.8	Extra Workspace	Lake	Oregon	Forest	0.21
596.8	Extra Workspace	Lake	Oregon	Open Land	4.14
596.9	Extra Workspace	Lake	Oregon	Forest	0.42
597.2	Extra Workspace	Lake	Oregon	Open Land	0.50
598.1	Extra Workspace	Lake	Oregon	Open Land	1.91
598.2	Extra Workspace	Lake	Oregon	Open Land	1.99
599.4	Extra Workspace	Lake	Oregon	Open Land	3.24
600.4	Extra Workspace	Lake	Oregon	Forest	0.23
600.7	Extra Workspace	Lake	Oregon	Open Land	19.83
601.7	Extra Workspace	Lake	Oregon	Open Land	0.25
601.7	Staging Area	Lake	Oregon	Open Land	0.47
601.8	Extra Workspace	Lake	Oregon	Forest	0.05
601.8	Extra Workspace	Lake	Oregon	Wetland	0.28
601.9	Extra Workspace	Lake	Oregon	Open Land	0.06
601.9	Extra Workspace	Lake	Oregon	Wetland	0.01
602.0	Extra Workspace	Lake	Oregon	Open Land	3.22

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
602.2	Extra Workspace	Lake	Oregon	Forest	0.11
602.3	Extra Workspace	Lake	Oregon	Open Land	0.16
602.4	Staging Area	Lake	Oregon	Forest	0.46
602.5	Extra Workspace	Lake	Oregon	Open Land	0.20
602.5	Staging Area	Lake	Oregon	Forest	0.05
602.5	Staging Area	Lake	Oregon	Open Land	0.41
602.7	Extra Workspace	Lake	Oregon	Open Land	0.03
602.8	Extra Workspace	Lake	Oregon	Forest	0.80
602.8	Extra Workspace	Lake	Oregon	Open Land	0.16
603.0	Extra Workspace	Lake	Oregon	Forest	13.16
603.1	Extra Workspace	Lake	Oregon	Open Land	0.32
603.2	Extra Workspace	Lake	Oregon	Open Land	0.06
603.2	Extra Workspace	Lake	Oregon	Wetland	0.04
603.2	Staging Area	Lake	Oregon	Open Land	0.35
603.3	Extra Workspace	Lake	Oregon	Open Land	0.03
603.3	Extra Workspace	Lake	Oregon	Wetland	0.00
603.3	Staging Area	Lake	Oregon	Forest	0.48
603.3	Staging Area	Lake	Oregon	Open Land	0.08
603.5	Staging Area	Lake	Oregon	Open Land	1.24
603.6	Extra Workspace	Lake	Oregon	Open Land	0.03
604.0	Extra Workspace	Lake	Oregon	Forest	2.21
604.0	Extra Workspace	Lake	Oregon	Open Land	0.35
604.1	Extra Workspace	Lake	Oregon	Forest	0.03
604.1	Staging Area	Lake	Oregon	Forest	0.70
604.2	Staging Area	Lake	Oregon	Forest	0.21
604.8	Staging Area	Lake	Oregon	Forest	0.00
604.8	Staging Area	Lake	Oregon	Open Land	0.02
604.9	Staging Area	Lake	Oregon	Forest	0.28
604.9	Staging Area	Lake	Oregon	Open Land	0.62
605.2	Extra Workspace	Lake	Oregon	Forest	0.90

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
605.3	Extra Workspace	Lake	Oregon	Open Land	0.35
605.4	Extra Workspace	Lake	Oregon	Forest	0.03
605.5	Extra Workspace	Lake	Oregon	Forest	3.59
605.6	Extra Workspace	Lake	Oregon	Forest	2.27
605.6	Staging Area	Lake	Oregon	Forest	0.92
606.0	Staging Area	Lake	Oregon	Forest	0.92
606.4	Staging Area	Lake	Oregon	Forest	0.86
606.5	Extra Workspace	Lake	Oregon	Open Land	0.16
606.5	Staging Area	Lake	Oregon	Forest	0.01
606.5	Staging Area	Lake	Oregon	Open Land	0.05
606.6	Extra Workspace	Lake	Oregon	Open Land	0.29
606.7	Extra Workspace	Lake	Oregon	Forest	1.75
606.8	Extra Workspace	Lake	Oregon	Forest	0.02
606.8	Extra Workspace	Lake	Oregon	Open Land	0.83
606.9	Extra Workspace	Lake	Oregon	Open Land	0.65
607.1	Staging Area	Lake	Oregon	Forest	0.24
607.1	Staging Area	Lake	Oregon	Open Land	0.68
607.5	Staging Area	Lake	Oregon	Forest	0.44
607.6	Staging Area	Lake	Oregon	Forest	0.00
607.6	Staging Area	Lake	Oregon	Open Land	0.48
607.9	Extra Workspace	Lake	Oregon	Open Land	0.29
608.0	Staging Area	Lake	Oregon	Forest	0.44
608.0	Staging Area	Lake	Oregon	Open Land	0.47
608.3	Extra Workspace	Lake	Oregon	Open Land	0.00
608.5	Extra Workspace	Lake	Oregon	Open Land	0.48
608.5	Staging Area	Lake	Oregon	Forest	0.01
608.5	Staging Area	Lake	Oregon	Open Land	0.91
609.0	Extra Workspace	Lake	Oregon	Open Land	1.21
609.0	Staging Area	Lake	Oregon	Forest	0.68
609.0	Staging Area	Lake	Oregon	Open Land	0.24
609.3	Extra Workspace	Lake	Oregon	Open Land	0.69
609.3	Staging Area	Lake	Oregon	Open Land	0.01

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
609.4	Extra Workspace	Lake	Oregon	Forest	0.00
609.4	Extra Workspace	Lake	Oregon	Forest	0.91
609.8	Extra Workspace	Lake	Oregon	Open Land	0.18
609.9	Extra Workspace	Lake	Oregon	Forest	0.00
609.9	Extra Workspace	Lake	Oregon	Open Land	0.09
609.9	Staging Area	Lake	Oregon	Forest	0.92
610.0	Extra Workspace	Lake	Oregon	Forest	0.16
610.0	Extra Workspace	Lake	Oregon	Open Land	0.42
610.0	Staging Area	Lake	Oregon	Forest	0.53
610.0	Staging Area	Lake	Oregon	Open Land	0.16
610.5	Extra Workspace	Lake	Oregon	Forest	0.45
610.6	Extra Workspace	Lake	Oregon	Open Land	0.26
610.7	Extra Workspace	Lake	Oregon	Open Land	0.47
610.8	Extra Workspace	Lake	Oregon	Open Land	0.35
610.8	Extra Workspace	Lake	Oregon	Wetland	0.01
610.8	Staging Area	Lake	Oregon	Forest	0.03
610.8	Staging Area	Lake	Oregon	Open Land	0.42
610.9	Extra Workspace	Lake	Oregon	Wetland	0.01
611.0	Extra Workspace	Lake	Oregon	Wetland	0.02
611.2	Extra Workspace	Lake	Oregon	Open Land	0.09
611.2	Staging Area	Lake	Oregon	Forest	0.28
611.2	Staging Area	Lake	Oregon	Open Land	0.02
611.3	Extra Workspace	Lake	Oregon	Open Land	0.23
611.3	Staging Area	Lake	Oregon	Forest	0.01
611.3	Staging Area	Lake	Oregon	Open Land	0.50
611.4	Extra Workspace	Lake	Oregon	Open Land	0.17
611.4	Extra Workspace	Lake	Oregon	Wetland	0.02
611.6	Extra Workspace	Lake	Oregon	Wetland	0.01
611.8	Extra Workspace	Lake	Oregon	Forest	0.01

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
611.8	Extra Workspace	Lake	Oregon	Open Land	0.18
611.8	Staging Area	Lake	Oregon	Forest	0.22
611.8	Staging Area	Lake	Oregon	Open Land	0.42
611.9	Extra Workspace	Lake	Oregon	Forest	0.22
611.9	Extra Workspace	Lake	Oregon	Open Land	0.13
612.0	Extra Workspace	Lake	Oregon	Forest	0.69
612.1	Extra Workspace	Lake	Oregon	Open Land	4.35
612.4	Extra Workspace	Lake	Oregon	Forest	0.56
612.5	Extra Workspace	Lake	Oregon	Open Land	0.07
612.6	Extra Workspace	Lake	Oregon	Forest	0.26
612.6	Extra Workspace	Lake	Oregon	Open Land	0.05
612.7	Extra Workspace	Lake	Oregon	Forest	0.07
612.7	Extra Workspace	Lake	Oregon	Open Land	0.55
612.8	Extra Workspace	Lake	Oregon	Open Land	1.67
612.9	Extra Workspace	Lake	Oregon	Open Land	0.11
613.0	Extra Workspace	Lake	Oregon	Forest	0.72
613.1	Extra Workspace	Lake	Oregon	Open Land	0.61
613.3	Extra Workspace	Lake	Oregon	Open Land	0.03
613.4	Extra Workspace	Lake	Oregon	Open Land	12.21
613.8	Extra Workspace	Lake	Oregon	Open Land	0.10
614.1	Extra Workspace	Lake	Oregon	Open Land	1.40
614.2	Extra Workspace	Lake	Oregon	Agriculture	0.28
614.2	Extra Workspace	Lake	Oregon	Developed	0.56
614.2	Extra Workspace	Lake	Oregon	Open Land	0.09
614.2	Staging Area	Lake	Oregon	Agriculture	0.50
614.2	Staging Area	Lake	Oregon	Developed	0.23
614.2	Staging Area	Lake	Oregon	Open Land	0.00

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
614.4	Extra Workspace	Lake	Oregon	Open Land	1.84
614.5	Extra Workspace	Lake	Oregon	Agriculture	0.18
614.5	Extra Workspace	Lake	Oregon	Open Land	0.22
614.9	Extra Workspace	Lake	Oregon	Wetland	1.42
615.0	Extra Workspace	Lake	Oregon	Wetland	5.14
615.2	Extra Workspace	Lake	Oregon	Agriculture	4.86
615.2	Extra Workspace	Lake	Oregon	Wetland	0.21
615.3	Extra Workspace	Lake	Oregon	Wetland	0.04
615.5	Extra Workspace	Lake	Oregon	Wetland	0.02
615.6	Extra Workspace	Lake	Oregon	Wetland	1.75
615.7	Extra Workspace	Lake	Oregon	Agriculture	0.04
615.7	Extra Workspace	Lake	Oregon	Open Land	0.51
615.8	Extra Workspace	Lake	Oregon	Agriculture	0.46
615.8	Extra Workspace	Lake	Oregon	Open Land	1.14
615.9	Extra Workspace	Lake	Oregon	Open Land	0.12
616.0	Extra Workspace	Lake	Oregon	Open Land	1.85
616.1	Extra Workspace	Lake	Oregon	Open Land	0.01
616.2	Extra Workspace	Lake	Oregon	Open Land	2.03
616.3	Extra Workspace	Lake	Oregon	Open Land	0.36
616.4	Extra Workspace	Lake	Oregon	Open Land	0.21
616.4	Extra Workspace	Lake	Oregon	Wetland	0.19
616.6	Extra Workspace	Lake	Oregon	Wetland	0.78
616.7	Extra Workspace	Lake	Oregon	Wetland	0.14
616.8	Extra Workspace	Lake	Oregon	Wetland	10.73
617.0	Extra Workspace	Lake	Oregon	Wetland	0.05

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
617.4	Extra Workspace	Lake	Oregon	Agriculture	0.17
617.5	Extra Workspace	Lake	Oregon	Agriculture	5.98
617.5	Staging Area	Lake	Oregon	Agriculture	2.20
618.3	Extra Workspace	Lake	Oregon	Open Land	8.41
618.4	Extra Workspace	Lake	Oregon	Forest	0.27
618.5	Extra Workspace	Lake	Oregon	Forest	0.09
618.7	Extra Workspace	Lake	Oregon	Agriculture	0.03
618.8	Extra Workspace	Lake	Oregon	Agriculture	0.96
618.8	Extra Workspace	Lake	Oregon	Open Land	0.20
618.9	Extra Workspace	Lake	Oregon	Agriculture	0.07
619.0	Extra Workspace	Lake	Oregon	Open Land	0.11
619.1	Extra Workspace	Lake	Oregon	Agriculture	1.82
619.1	Extra Workspace	Lake	Oregon	Open Land	2.87
619.6	Extra Workspace	Lake	Oregon	Open Water	3.73
619.9	Extra Workspace	Lake	Oregon	Wetland	1.23
620.0	Extra Workspace	Lake	Oregon	Wetland	1.05
621.0	Extra Workspace	Lake	Oregon	Wetland	0.52
621.0	Staging Area	Lake	Oregon	Open Water	0.15
621.0	Staging Area	Lake	Oregon	Wetland	0.21
623.3	Extra Workspace	Lake	Oregon	Wetland	0.01
623.4	Extra Workspace	Lake	Oregon	Wetland	73.52
623.6	Extra Workspace	Lake	Oregon	Wetland	38.17
623.7	Extra Workspace	Lake	Oregon	Wetland	1.07
623.8	Extra Workspace	Lake	Oregon	Wetland	0.47
627.0	Extra Workspace	Lake	Oregon	Wetland	0.79
627.0	Staging Area	Lake	Oregon	Open Water	1.89
627.0	Staging Area	Lake	Oregon	Wetland	0.68

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
627.4	Extra Workspace	Lake	Oregon	Wetland	1.11
627.5	Extra Workspace	Lake	Oregon	Wetland	1.42
627.6	Extra Workspace	Lake	Oregon	Wetland	1.53
627.7	Extra Workspace	Lake	Oregon	Agriculture	0.53
627.8	Extra Workspace	Lake	Oregon	Developed	0.19
627.8	Extra Workspace	Lake	Oregon	Open Land	1.50
627.8	Staging Area	Lake	Oregon	Open Land	0.73
627.9	Extra Workspace	Lake	Oregon	Agriculture	0.09
627.9	Extra Workspace	Lake	Oregon	Open Land	0.00
628.4	Extra Workspace	Lake	Oregon	Agriculture	0.78
629.2	Extra Workspace	Lake	Oregon	Open Land	0.78
629.3	Extra Workspace	Lake	Oregon	Open Land	0.01
629.6	Extra Workspace	Lake	Oregon	Open Land	0.60
629.7	Extra Workspace	Lake	Oregon	Open Land	0.99
629.8	Extra Workspace	Lake	Oregon	Open Land	1.27
629.9	Extra Workspace	Lake	Oregon	Forest	0.09
629.9	Extra Workspace	Lake	Oregon	Open Land	1.03
630.0	Extra Workspace	Lake	Oregon	Open Land	0.58
630.1	Extra Workspace	Lake	Oregon	Forest	0.19
630.1	Extra Workspace	Lake	Oregon	Open Land	0.96
631.0	Extra Workspace	Lake	Oregon	Open Land	2.83
631.1	Extra Workspace	Lake	Oregon	Open Land	4.81
631.4	Extra Workspace	Lake	Oregon	Open Land	0.60
631.7	Extra Workspace	Lake	Oregon	Open Land	0.04
631.8	Extra Workspace	Lake	Oregon	Open Land	0.51

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
632.6	Extra Workspace	Lake	Oregon	Open Land	0.22
632.7	Extra Workspace	Lake	Oregon	Open Land	1.13
632.8	Extra Workspace	Lake	Oregon	Open Land	0.05
632.9	Extra Workspace	Lake	Oregon	Open Land	0.78
634.7	Extra Workspace	Lake	Oregon	Open Land	1.49
634.8	Extra Workspace	Lake	Oregon	Open Land	0.21
634.9	Extra Workspace	Lake	Oregon	Forest	0.14
635.0	Extra Workspace	Lake	Oregon	Forest	0.09
635.0	Extra Workspace	Lake	Oregon	Open Land	1.04
635.0	Staging Area	Lake	Oregon	Open Land	0.45
635.1	Extra Workspace	Lake	Oregon	Open Land	0.13
635.1	Staging Area	Lake	Oregon	Forest	0.93
635.1	Staging Area	Lake	Oregon	Open Land	0.00
635.2	Extra Workspace	Lake	Oregon	Open Land	0.31
635.6	Extra Workspace	Lake	Oregon	Forest	11.99
635.9	Extra Workspace	Lake	Oregon	Open Land	0.25
635.9	Staging Area	Lake	Oregon	Forest	0.50
636.0	Staging Area	Lake	Oregon	Forest	0.09
636.1	Extra Workspace	Lake	Oregon	Forest	0.44
636.3	Staging Area	Lake	Oregon	Forest	0.60
636.3	Staging Area	Lake	Oregon	Open Land	0.20
636.4	Staging Area	Lake	Oregon	Open Land	0.19
637.0	Staging Area	Lake	Oregon	Forest	0.42
637.0	Staging Area	Lake	Oregon	Open Land	0.50
637.3	Extra Workspace	Lake	Oregon	Forest	0.18
637.3	Staging Area	Lake	Oregon	Forest	0.73
637.8	Staging Area	Lake	Oregon	Forest	0.92
637.9	Extra Workspace	Lake	Oregon	Forest	0.09
638.0	Extra Workspace	Lake	Oregon	Forest	15.37
638.5	Extra Workspace	Lake	Oregon	Forest	0.03

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
638.8	Extra Workspace	Lake	Oregon	Open Land	0.19
638.9	Extra Workspace	Lake	Oregon	Open Land	0.08
639.1	Extra Workspace	Lake	Oregon	Forest	2.11
639.1	Extra Workspace	Lake	Oregon	Wetland	0.02
639.2	Extra Workspace	Lake	Oregon	Forest	2.21
639.6	Extra Workspace	Lake	Oregon	Forest	0.07
639.6	Extra Workspace	Lake	Oregon	Open Land	0.21
639.6	Staging Area	Lake	Oregon	Forest	0.77
639.6	Staging Area	Lake	Oregon	Open Land	0.14
639.7	Extra Workspace	Lake	Oregon	Forest	0.03
639.7	Staging Area	Lake	Oregon	Forest	0.01
639.8	Extra Workspace	Lake	Oregon	Forest	3.56
640.0	Extra Workspace	Lake	Oregon	Open Land	0.58
640.7	Staging Area	Lake	Oregon	Open Land	0.92
641.4	Extra Workspace	Lake	Oregon	Open Land	0.21
641.5	Extra Workspace	Lake	Oregon	Open Land	0.47
641.6	Extra Workspace	Lake	Oregon	Forest	3.47
641.7	Staging Area	Lake	Oregon	Forest	0.92
641.8	Extra Workspace	Lake	Oregon	Open Land	0.41
643.1	Extra Workspace	Lake	Oregon	Open Land	0.78
643.3	Extra Workspace	Lake	Oregon	Open Land	0.00
643.7	Extra Workspace	Lake	Oregon	Forest	5.33
643.7	Extra Workspace	Lake	Oregon	Open Land	0.32
643.9	Extra Workspace	Lake	Oregon	Forest	0.03
644.2	Staging Area	Lake	Oregon	Forest	1.39
644.3	Extra Workspace	Lake	Oregon	Open Land	0.05
644.3	Staging Area	Lake	Oregon	Forest	0.07
644.3	Staging Area	Lake	Oregon	Open Land	0.20

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
644.4	Extra Workspace	Lake	Oregon	Forest	0.93
644.4	Extra Workspace	Lake	Oregon	Open Land	0.03
644.6	Staging Area	Lake	Oregon	Forest	0.92
644.9	Extra Workspace	Lake	Oregon	Forest	1.33
645.2	Extra Workspace	Lake	Oregon	Forest	0.06
645.3	Extra Workspace	Lake	Oregon	Forest	0.75
645.3	Staging Area	Lake	Oregon	Forest	0.35
645.3	Staging Area	Lake	Oregon	Open Land	0.59
645.5	Extra Workspace	Lake	Oregon	Forest	0.32
645.6	Extra Workspace	Lake	Oregon	Forest	0.38
645.6	Extra Workspace	Lake	Oregon	Open Land	0.06
646.0	Extra Workspace	Lake	Oregon	Forest	0.56
646.1	Extra Workspace	Lake	Oregon	Open Land	0.13
646.2	Staging Area	Lake	Oregon	Forest	0.17
646.2	Staging Area	Lake	Oregon	Open Land	0.66
646.2	Staging Area	Lake	Oregon	Wetland	0.09
646.4	Extra Workspace	Lake	Oregon	Open Land	0.13
646.5	Extra Workspace	Lake	Oregon	Forest	1.07
646.5	Extra Workspace	Lake	Oregon	Open Land	0.09
646.6	Staging Area	Lake	Oregon	Forest	0.70
646.6	Staging Area	Lake	Oregon	Open Land	0.23
646.7	Extra Workspace	Lake	Oregon	Forest	0.49
646.7	Extra Workspace	Lake	Oregon	Open Land	0.09
646.8	Extra Workspace	Lake	Oregon	Forest	0.72
646.9	Extra Workspace	Lake	Oregon	Open Land	0.18
647.1	Extra Workspace	Klamath	Oregon	Forest	1.30
647.1	Extra Workspace	Klamath	Oregon	Open Land	0.30
647.2	Extra Workspace	Klamath	Oregon	Open Land	0.00
647.3	Staging Area	Klamath	Oregon	Forest	0.72

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
647.3	Staging Area	Klamath	Oregon	Open Land	0.08
647.5	Extra Workspace	Klamath	Oregon	Forest	0.34
647.6	Extra Workspace	Klamath	Oregon	Open Land	0.42
648.0	Staging Area	Klamath	Oregon	Open Land	0.61
648.3	Staging Area	Klamath	Oregon	Forest	0.01
648.3	Staging Area	Klamath	Oregon	Open Land	0.91
648.9	Staging Area	Klamath	Oregon	Open Land	0.92
649.4	Extra Workspace	Klamath	Oregon	Open Land	1.26
649.5	Extra Workspace	Klamath	Oregon	Open Land	0.12
649.6	Staging Area	Klamath	Oregon	Open Land	0.52
649.7	Staging Area	Klamath	Oregon	Open Land	0.80
650.2	Extra Workspace	Klamath	Oregon	Forest	0.29
650.2	Extra Workspace	Klamath	Oregon	Open Land	0.75
650.3	Extra Workspace	Klamath	Oregon	Open Land	0.18
650.4	Staging Area	Klamath	Oregon	Forest	0.52
650.4	Staging Area	Klamath	Oregon	Open Land	0.45
650.7	Extra Workspace	Klamath	Oregon	Forest	0.10
650.7	Extra Workspace	Klamath	Oregon	Open Land	0.06
651.0	Extra Workspace	Klamath	Oregon	Open Land	0.49
651.8	Extra Workspace	Klamath	Oregon	Forest	0.24
651.8	Extra Workspace	Klamath	Oregon	Open Land	0.22
651.9	Extra Workspace	Klamath	Oregon	Forest	0.00
651.9	Staging Area	Klamath	Oregon	Forest	0.31
651.9	Staging Area	Klamath	Oregon	Open Land	0.15
652.0	Extra Workspace	Klamath	Oregon	Forest	1.05
652.2	Staging Area	Klamath	Oregon	Forest	0.57
652.2	Staging Area	Klamath	Oregon	Open Land	0.35
652.3	Extra Workspace	Klamath	Oregon	Open Land	0.20
652.4	Extra Workspace	Klamath	Oregon	Forest	0.23
652.4	Extra Workspace	Klamath	Oregon	Open Land	0.11
652.4	Staging Area	Klamath	Oregon	Forest	0.04

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
652.4	Staging Area	Klamath	Oregon	Open Land	1.22
652.5	Staging Area	Klamath	Oregon	Forest	0.85
652.9	Staging Area	Klamath	Oregon	Forest	0.51
652.9	Staging Area	Klamath	Oregon	Forest	0.18
653.5	Extra Workspace	Klamath	Oregon	Open Land	1.03
653.5	Extra Workspace	Klamath	Oregon	Wetland	0.03
653.9	Staging Area	Klamath	Oregon	Open Land	0.32
654.0	Extra Workspace	Klamath	Oregon	Open Land	0.58
654.0	Extra Workspace	Klamath	Oregon	Open Land	0.65
655.2	Staging Area	Klamath	Oregon	Open Land	0.52
655.3	Extra Workspace	Klamath	Oregon	Open Land	0.21
655.3	Extra Workspace	Klamath	Oregon	Open Land	0.39
656.3	Staging Area	Klamath	Oregon	Open Land	1.33
656.4	Staging Area	Klamath	Oregon	Open Land	0.05
657.3	Staging Area	Klamath	Oregon	Open Land	1.29
657.4	Staging Area	Klamath	Oregon	Forest	0.09
658.4	Staging Area	Klamath	Oregon	Open Land	1.38
658.9	Extra Workspace	Klamath	Oregon	Open Land	0.60
659.0	Extra Workspace	Klamath	Oregon	Forest	0.03
659.0	Extra Workspace	Klamath	Oregon	Open Land	0.21
659.1	Extra Workspace	Klamath	Oregon	Open Land	1.01
659.3	Extra Workspace	Klamath	Oregon	Open Land	0.91
659.4	Extra Workspace	Klamath	Oregon	Open Land	0.04
	Staging Area	Klamath	Oregon	Open Land	0.56
660.0	Staging Area	Klamath	Oregon	Open Land	0.92
660.4	Extra Workspace	Klamath	Oregon	Open Land	1.04
661.0	Staging Area	Klamath	Oregon	Open Land	0.92
661.2	Extra Workspace	Klamath	Oregon	Open Land	0.10
661.3	Extra Workspace	Klamath	Oregon	Open Land	1.10
661.4	Extra Workspace	Klamath	Oregon	Open Land	0.09
661.5	Extra Workspace	Klamath	Oregon	Open Land	0.00

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
661.6	Extra Workspace	Klamath	Oregon	Open Land	4.23
661.7	Extra Workspace	Klamath	Oregon	Open Land	0.00
661.8	Extra Workspace	Klamath	Oregon	Open Land	0.35
662.3	Staging Area	Klamath	Oregon	Open Land	0.92
662.8	Extra Workspace	Klamath	Oregon	Open Land	0.09
662.9	Extra Workspace	Klamath	Oregon	Forest	0.43
				Open Land	0.50
664.4	Staging Area	Klamath	Oregon	Open Land	0.60
664.5	Staging Area	Klamath	Oregon	Open Land	0.28
664.6	Staging Area	Klamath	Oregon	Open Land	1.10
665.0	Extra Workspace	Klamath	Oregon	Forest	3.59
665.2	Extra Workspace	Klamath	Oregon	Open Land	0.29
665.2	Extra Workspace	Klamath	Oregon	Open Water	0.60
665.3	Extra Workspace	Klamath	Oregon	Open Land	0.15
665.4	Extra Workspace	Klamath	Oregon	Open Land	0.21
665.6	Extra Workspace	Klamath	Oregon	Forest	0.00
665.6	Extra Workspace	Klamath	Oregon	Forest	1.38
666.1	Extra Workspace	Klamath	Oregon	Forest	14.93
666.5	Extra Workspace	Klamath	Oregon	Open Land	0.09
666.6	Extra Workspace	Klamath	Oregon	Forest	0.06
666.7	Extra Workspace	Klamath	Oregon	Open Land	0.07
666.8	Extra Workspace	Klamath	Oregon	Forest	0.06
666.8	Extra Workspace	Klamath	Oregon	Open Land	0.12
666.8	Staging Area	Klamath	Oregon	Forest	0.12
666.8	Staging Area	Klamath	Oregon	Open Land	0.59
666.9	Extra Workspace	Klamath	Oregon	Open Land	1.88
667.0	Extra Workspace	Klamath	Oregon	Open Land	0.22
667.0	Extra Workspace	Klamath	Oregon	Open Land	0.74

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
667.2	Extra Workspace	Klamath	Oregon	Open Land	0.18
667.3	Extra Workspace	Klamath	Oregon	Forest	2.89
667.4	Extra Workspace	Klamath	Oregon	Forest	0.01
667.4	Extra Workspace	Klamath	Oregon	Open Land	0.28
667.5	Staging Area	Klamath	Oregon	Forest	0.00
667.5	Staging Area	Klamath	Oregon	Open Land	0.06
667.6	Extra Workspace	Klamath	Oregon	Forest	0.06
667.6	Staging Area	Klamath	Oregon	Forest	0.06
667.6	Staging Area	Klamath	Oregon	Open Land	0.79
667.7	Extra Workspace	Klamath	Oregon	Open Land	0.52
667.8	Extra Workspace	Klamath	Oregon	Forest	2.62
668.0	Extra Workspace	Klamath	Oregon	Open Land	0.68
668.2	Extra Workspace	Klamath	Oregon	Forest	0.44
668.3	Extra Workspace	Klamath	Oregon	Open Land	2.62
668.5	Extra Workspace	Klamath	Oregon	Open Land	1.27
670.5	Extra Workspace	Klamath	Oregon	Forest	0.08
670.5	Extra Workspace	Klamath	Oregon	Open Land	0.03
668.9	Extra Workspace	Klamath	Oregon	Open Land	2.77
669.0	Extra Workspace	Klamath	Oregon	Forest	0.53
669.1	Extra Workspace	Klamath	Oregon	Open Land	0.27
669.4	Staging Area	Klamath	Oregon	Open Land	0.60
670.5	Extra Workspace	Klamath	Oregon	Forest	0.57
670.5	Extra Workspace	Klamath	Oregon	Open Land	0.61
669.9	Extra Workspace	Klamath	Oregon	Open Land	0.35
670.0	Extra Workspace	Klamath	Oregon	Open Land	0.04
670.1	Extra Workspace	Klamath	Oregon	Open Land	0.91
670.2	Extra Workspace	Klamath	Oregon	Open Land	0.28

**Table 4.1-3 Extra Workspace and Staging Areas for the Project**

<b>Approximate Milepost</b>	<b>Feature</b>	<b>County</b>	<b>State</b>	<b>FERC Land use Category</b>	<b>Acres</b>
670.5	Extra Workspace	Klamath	Oregon	Forest	2.11
670.5	Extra Workspace	Klamath	Oregon	Open Land	0.11
670.4	Extra Workspace	Klamath	Oregon	Open Land	0.73
670.5	Extra Workspace	Klamath	Oregon	Forest	0.09
670.5	Extra Workspace	Klamath	Oregon	Open Land	0.28
670.8	Staging Area	Klamath	Oregon	Open Land	1.43
670.9	Staging Area	Klamath	Oregon	Open Land	0.09
671.4	Extra Workspace	Klamath	Oregon	Open Land	0.65
671.5	Extra Workspace	Klamath	Oregon	Forest	1.05
671.5	Extra Workspace	Klamath	Oregon	Open Land	0.36
671.6	Extra Workspace	Klamath	Oregon	Open Land	0.77
671.7	Extra Workspace	Klamath	Oregon	Open Land	0.05
671.7	Extra Workspace	Klamath	Oregon	Open Land	0.60
671.8	Extra Workspace	Klamath	Oregon	Agriculture	0.45
671.9	Extra Workspace	Klamath	Oregon	Agriculture	0.23
672.2	Extra Workspace	Klamath	Oregon	Agriculture	0.25
672.2	Extra Workspace	Klamath	Oregon	Developed	0.20
<b>Grand Total</b>					<b>2842.75</b>

Table 4.1.6 Vegetation Communities Affected by Construction and Operation of the Ruby Pipeline Project (in acres)

Vegetation Component		Barren/ Developed		Grassland		Juniper woodland		Mixed Conifer Forest		Mountain Meadow/Brush		Open Water		Pasture and Agriculture		Riparian Forest		Sagebrush Steppe		Salt Desert Scrub		Total
		Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	Op.(a)	Con(b)	
Wyoming	Above Ground Facility	0.4	0.5	2.8	2.8													34.1	34.1	5.4	5.4	42.8
	Access Roads		11.4		7.5		0.9				0.4		0.1		1.2		12.1		237.1		62.0	332.9
	Extra Workspace		7.2		3.4		2.0				3.3		0.0		1.3		5.3		93.1		11.6	127.2
	ROW	10.0	22.9	6.3	15.0	0.9	2.5			2.3	5.4	0.1	0.1	5.3	10.2	9.3	20.4	217.3	496.7	40.9	93.5	666.7
	Staging Area		2.8		0.4										0.7		0.7		10.2		1.5	16.2
	Yard		0.6		1.8		4.1						0.1		11.2		51.2		63.4		7.7	140.3
Wyoming Total		10.4	45.6	9.1	30.8	0.9	9.6			2.3	9.1	0.1	0.4	5.3	24.6	9.3	89.7	251.5	934.7	46.3	181.6	1326.2
Utah	Above Ground Facility	0.9	0.9																	26.6	26.6	27.5
	Access Roads		305.0		32.1		11.9		0.9		116.4		0.3		134.5		14.0		282.6		182.0	1079.7
	Extra Workspace		50.0		33.6		26.0		6.7		135.5		1.1		155.2		20.6		309.8		79.9	818.6
	ROW	158.4	347.2	40.7	95.4	18.2	41.4	4.7	9.8	146.5	335.0	0.7	1.4	145.5	323.2	18.4	42.2	311.3	723.4	275.6	629.2	2548.1
	Staging Area		18.4		1.6		1.9				5.5		0.2		103.3		5.2		29.1		99.2	264.4
	Yard		9.7		2.7						0.2				96.7				5.2		1.5	115.9
Utah Total		159.3	731.2	40.7	165.4	18.2	81.2	4.7	17.4	146.5	592.6	0.7	3.0	145.5	812.9	18.4	82.0	311.3	1350.1	302.2	1018.4	4854.2
Nevada	Above Ground Facility	1.1	1.1	0.1	0.1									2.5	2.5			26.0	26.0	23.7	23.7	53.5
	Access Roads		17.8		73.7		11.5		0.6		13.8				3.9		15.9		1191.0		79.0	1407.2
	Construction Camp		1.8		1.6														157.7			161.0
	Extra Workspace		14.3		100.3		33.5		1.7		24.6				3.9		4.6		982.1		48.7	1213.5
	ROW	25.9	60.0	256.3	585.1	31.4	74.6	0.6	1.7	19.4	44.5			20.9	45.1	9.7	22.2	1404.8	3224.8	394.5	904.6	4962.5
	Staging Area		8.8		8.8										7.8		2.3		99.8		17.2	144.9
	Yard		31.5		9.1		0.2								0.2				391.7		110.4	543.1
Nevada Total		27.1	135.2	256.4	778.6	31.4	119.9	0.6	3.9	19.4	82.9			23.4	63.4	9.7	45.0	1430.9	6073.2	418.2	1183.5	8485.7
Oregon	Above Ground Facility	0.9	0.9											10.3	10.3			1.2	1.2	4.8	4.8	17.2
	Access Roads		6.5		5.9		9.5				16.8				3.2		10.4		92.9		13.8	303.3
	Construction Camp		0.1		0.2										6.2				5.6		0.0	12.1
	Extra Workspace		7.0		2.2		32.4				18.4				37.9		9.4		133.2		6.5	485.7
	Extra Workspace Lateral		0.7										117.5		3.2				0.2		0.1	4.2
	ROW	6.2	14.6	2.3	4.5	36.6	84.5	117.3	269.4	24.7	55.5	49.9	76.6	28.3	57.4	8.3	16.7	222.3	510.7	21.4	48.9	1138.8
	ROW Lateral	0.9	1.9						0.0					14.5	34.0		0.0	0.2	0.5	0.3	0.5	36.9
	Staging Area		11.2		0.1		3.4		22.6		7.2		2.9		2.5		0.7		23.6		3.6	77.8
	Yard		6.7		0.0				0.6						30.6		0.3		49.4		0.1	87.7
Oregon Total		7.9	49.5	2.3	12.9	36.6	129.8	117.3	557.8	24.7	97.9	49.9	197.1	53.1	185.2	8.3	37.7	223.7	817.4	26.4	78.3	2163.7
Grand Total		204.6	961.5	308.4	987.7	87.1	340.5	122.6	579.1	193.0	782.5	50.6	200.5	227.3	1086.2	45.6	254.5	2217.3	9175.4	793.2	2461.8	16829.7

(a) = Operational impacts comprise the area within the 50-foot-wide permanent right-of-way and the footprint of aboveground facilities.

(b) = Construction impacts comprise all areas affected during construction.

Op. = Impacts within the 50-foot-wide permanent right-of-way of the mainline and lateral pipeline

Con. = Impacts within the 115-foot-wide construction workspace.

## 5 General Pipeline Construction Procedure

Ruby would implement an environmental compliance program for the Project. Ruby's inspection and oversight personnel, including environmental inspectors and the construction contractor, would receive copies of all applicable environmental permits, plans, and procedures, as well as any conditions agreed to by Ruby and relevant landowners.

Further, the construction contractor would receive any Project-specific alterations to FERC's standard Plan and Procedures as approved by the appropriate agencies, including FERC (Ruby's Plan and Procedures, Appendices D and F, respectively). Ruby's proposed alterations are shown at the appropriate location in the text of the Plan or the Procedures, in ***bold, italicized*** print. Additional information on particular construction methodology that does not change the meaning of the Plan or the Procedures has been included at the appropriate location in the text, but is shown only in **bold print**.

The construction contractor also would be provided with detailed and specific environmental procedures and drawings to ensure compliance with the FERC requirements for this Project, as they relate to notification requirements issued, mitigation measures approved by FERC, and other related environmental permits.

### 5.1 Pipeline Construction Sequence Summary

Standard pipeline construction techniques would be employed along the Project route. Those techniques typically involve the following sequential operations: staking and fencing (clearly marked construction fencing - removed after construction), clearing and grading, ditching, stringing and bending, welding, joint coating, lowering and backfilling, hydrostatic testing, and cleanup and restoration. Typical construction drawings depicting standard construction techniques are provided under Appendix A, Attachment B, (Construction Typical) and would be used unless conditions warrant special methods described later in this section.

#### 5.1.1 Environmental Compliance

Ruby is funding a third-party environmental compliance monitoring team to work primarily under the direction of the FERC and BLM, with close collaboration with the USFS, Reclamation, and other permitting agencies. The third-party compliance

monitoring team will focus its efforts on natural and cultural resources related to permits and mitigation measures associated with the Project.

An Environmental Compliance Monitoring Plan, Appendix U, has been prepared which outlines the objectives of the Environmental Compliance Monitoring Program; identifies the Program's organizational, reporting, and communication structure; clarifies the roles and responsibilities of Ruby's inspection and construction and BLM's monitoring personnel; describes the environmental training requirements; details the compliance reporting and documentation processes and reports; outlines the Program's variance processes and procedures to account for changes from approved mitigation measures or construction procedures; discusses emergency procedures; and identifies equipment needs.

### **5.1.2 Pipeline Pre-Construction**

Prior to any construction activities, survey crews would stake the outside limits of the construction ROW, the centerline of the pipeline trench, and temporary workspace areas with color-coded flagging. Sensitive areas to be avoided may be marked using specific flagging tape or construction fencing to maintain separation from construction activities, and wetland boundaries would be clearly delineated using easily identifiable temporary signage. Ruby will work with the applicable federal land management agency's archeologist and SHPOs to determine how sensitive cultural resources should be marked in order to alert construction crews but not the public. Before any grading or excavation begins, One-Call systems for the various states would be contacted so that buried utilities could be identified and flagged by the facility owners. Ruby would also work with the owners of the foreign facilities to develop a parallel construction work plan agreement that would have specific safety-related procedures regarding construction near third-party lines.

### **5.1.3 Clearing and Grading**

Vegetation would be cleared and the construction corridor graded, as needed, to provide safe and efficient operation of construction equipment. Space would be provided for temporary storage of spoil material and segregated topsoil. The width of the construction corridor would be restricted to avoid undue surface disturbance to adjacent resources. The construction corridor boundaries are the limits of the temporary workspace and would be clearly staked or flagged. No disturbance would be allowed beyond the ROW limits unless previously approved in writing by the BLM's Authorizing Officer.

In most cases, topography (side hill, cut and fill areas, irrigated lands) would dictate when ROW vegetation is left in place or removed. Soil conditions (rutting, loose, sandy,

limited topsoil, etc.) would also help to determine how the ROW area would be prepared for construction.

When grading is required, trees, brush, and shrubs within the construction corridor would be cut or scraped at or near the ground level. Low brush would be scraped up and stored with the topsoil. Trees and larger brush would be stored within the ROW, where possible, or stored adjacent to the ROW at agency-approved locations and placed on the ROW during final clean-up or removed from the ROW. Slash would either be spread back across the ROW, chipped and spread on the ROW, removed from the ROW, subject to landowner or land management agency approval and applicable law, but no burning will be allowed unless authorized by the Authorized Officer or landowner. Any slash that is chipped will be spread back across the ROW uniformly to depths not exceeding one inch.

On BLM lands in the KFRA, slash or logs that meet coarse woody debris (CWD) standards would be spread back on the ROW. If levels of slash or logs exceed CWD requirements, the material would be chipped and spread over the ROW, not to exceed one inch in depth, or removed to designated storage sites or utilized. Stumps removed from trench or work areas shall be hauled off to an appropriate location and ground up or buried within the ROW. All clearing activities will utilize access roads and ROWs permitted for the Project.

On BLM lands in the KFRA, 200 juniper trees no less than 20 inch diameter at breast height (DBH) will be selected from a limited area along the route to be used for off-site projects. Juniper within the trench portion of the ROW will be pushed over and removed with the root system attached. No pushing will be conducted outside of the trench area. These trees will be transported to Willow Valley Reservoir and will be submerged at specific locations by the BLM in accordance with appropriate permits.

On BLM lands in the KFRA, in designated areas, "non-commercial" timber and juniper would be made available for firewood. Larger (eight inches in diameter and larger at the small end) non-commercial pieces and non-commercial logs would be de-limbed, removed from the construction ROW and decked in designated storage sites (landings) or at designated road crossings. Limbing would occur prior to removal of logs to designated landing areas. The limbed logs would be made available to the public through the BLM's firewood programs. Larger slash and juniper that is greater than 1,500 feet from a suitable landing location would be spread out across the ROW after revegetation practices are completed or made available for use as fisheries or erosion control pieces.

For more detailed information regarding the removal and disposal of vegetation for BLM lands in the KFRA, see Appendix I, Attachment A, Right-of-Way Clearing Plan for Klamath Falls Resource Area BLM Lands.

The construction area would be graded to create a suitable work surface for construction vehicles. The terrain along the Project varies from relatively flat and even to steep with significant side slopes. Substantive cutting of terrain would not be performed unless required.

### **Topsoiling Methods**

Ruby would utilize the ditch-plus-spoil-side topsoiling method for the Project wherever possible. A number of exceptions to this topsoiling method are necessary, either due to sideslope, areas of weed infestation, agency requirement, etc. Following is a description of the ditch-plus-spoil-side topsoiling method and other topsoiling methods which may be implemented during construction.

Ditch-Plus-Spoil-Side: Within areas of 115-foot approved ROW, Ruby would brush hog/mow the working side of the ROW, leaving topsoil in place (rutting of six inches or greater would shut down work). There would be no additional ROW required for topsoil storage. Topsoil would be stored on undisturbed topsoil. If the working side is rough, light blading will be required to smooth the surface for safety purposes. This activity will generally only blade off the high spots and place the material in the low spots, preserving most of the root structure.

Full-ROW (115-foot-wide-ROW): Within areas of 115-foot approve ROW where topsoiling is either required by a landowner or land managing agency or is necessary due to rutting, Ruby would topsoil the ROW with the exception of the area necessary for topsoil placement. If the topsoil is less than six inches, Ruby would utilize portions of its 115-foot-wide ROW. If the topsoil is greater than six inches, then an additional 25-foot ROW (split 10-15 feet of either side of the construction ROW) would be necessary to store topsoil. The additional 25 feet would not be topsoiled and would be used to store topsoil only. This method will be used in areas of weed infestation.

Ditch-Plus-Working-Side: Within the 115- or 195-foot-wide construction ROW, Ruby would brush hog or mow the entire construction ROW, as necessary. Ruby would topsoil the working side and ditch portions of the ROW and would store topsoil from these areas on undisturbed topsoil at the outer limits of the working side of the construction ROW. Typically, no additional workspace beyond the approved ROW would be necessary.

Full-ROW (195-foot-wide-ROW): With the 195-foot-wide construction ROW, Ruby would brush hog or mow the entire construction ROW, as necessary. Ruby would topsoil the entire ROW (with the exception of where topsoil would be stored. Ruby would then store half of the topsoil on the spoil side and the remaining half on the working side, placing windrowed topsoil on undisturbed topsoil.

The additional workspace necessary for areas where full ROW topsoil segregation has been identified are on Ruby's alignment sheets (Appendix A).

Should Ruby need or be requested to segregate topsoil across the length of the ROW, Ruby would obtain landowner approval and environmental clearance prior to use of additional workspace necessary for full topsoil segregation. See Appendix A for Construction Typical.

As described above, Ruby will consider utilizing the full ROW topsoil method (1) where requested by the landowner or land managing agency; (2) to prevent the mixing of topsoil and subsoil and to prevent the temporary cessation of construction activities in areas where rutting exceeds six inches and topsoil and subsoil will mix; and (3) in areas of steep slopes, side hills, cut and fills.

Current exceptions to the ditch-plus-spoil-side topsoiling method described above include the following:

- Full-ROW topsoil segregation will be utilized on BLM lands in Wyoming; and
- Where practical, Ruby should deviate from its Ditch-Plus-Spoil-Side topsoil method proposed for the Project and segregate topsoil within the ditchline only on BLM lands in Utah and Nevada.
- No topsoil segregation would occur in saturated wetlands.
- No topsoiling would occur in areas where significant surface rock and/or bedrock are present at the surface such that it is not practical or possible to topsoil. Following backfilling activities, if sufficient topsoil cannot be separated from the surface rock/topsoil windrow created during grading, additional topsoil—or possibly clean, organic material, such as wood chips—would be hauled from a local agency-approved source and evenly distributed across the ROW at a depth similar to topsoil conditions adjacent to the ROW. Any topsoil or organic material obtained from off site would need to be certified as weed free by the Environmental Inspector.
- In locations where topsoil is thin, two inches or less, no topsoil segregation would occur, except in areas where biological soil crusts are located. Following backfilling activities, topsoil would be hauled from a local source and evenly distributed across the disturbed portion of the ROW at a depth similar to topsoil

conditions adjacent to the ROW. As an alternate, Ruby may elect to utilize hydro-mulching.

- In areas where no topsoil exists, no topsoiling could occur. Ruby would not haul topsoil from a local source to areas along the ROW where no topsoil exists.
- Ruby would not utilize the ditch-plus-spoil-side method in areas where alternative methods have been agreed upon by appropriate agencies to protect sensitive species as outlined in the Cooperative Conservation Agreement, Migratory Bird Treaty Act Voluntary Guidelines, or Endangered Species Act Conservation Action Plan, or in accordance with other agency stipulations or requirements for the Project.
- In irrigated and cultivated fields Ruby would, at a minimum, segregate the ditch line and spoil-side topsoil or, as noted above, would segregate the entire construction ROW topsoil at the landowner's request.

In addition to topsoiling segregation methods, the following includes other topsoil mitigation measures that would be implemented during construction activities along appropriate portions of the ROW.

- If rutting occurs but topsoil and subsoil do not mix, Ruby would rip the compacted topsoil up to 12 inches in depth to decompact the topsoil after the completion of construction activities and prior to the reseeding of the ROW.
- Prior to the replacement of segregated topsoil, Ruby would rip or disc the compacted subsoil to a depth not to exceed 12 inches. Topsoil would then be replaced, final cleanup would be completed and disturbed areas seeded.
- Where topsoil is lost due to construction activities, Ruby would be responsible for replacing topsoil with topsoil from a local source.
- Where topsoil exists and segregation is required, no more than 12 inches of topsoil would be segregated. The native seed base is contained in the top 12 inches of topsoil. Removal of deeper topsoil would dilute this seed base and slow the return of native vegetation. Further, most soils along the Project have between six and 12 inches of topsoil.
- Separation of salvaged topsoil and subsoil would be maintained throughout all construction activities. Additionally, segregated topsoil may not be used for padding the pipe.
- In any areas where replacement of topsoil is required as a result of rutting, Ruby will replace such topsoil with topsoil from a local source acceptable to the landowner or land management agency.

- Fences crossed by the construction corridor would be braced, cut, and temporarily fitted with a gate to permit passage of construction equipment while maintaining current livestock barriers and to help prevent unauthorized public access. During construction, the opening would be controlled as needed to prevent undesired passage. Upon completion of construction activities, existing fences would be replaced, braces would be left in place, and in some cases, gates would be permanently installed.

The Project would employ Ruby's Plan (Appendix D) and Ruby's Procedures (Appendix F) to minimize erosion during construction. The following general measures would be implemented as appropriate:

- Minimize the quantity and duration of soil exposure;
- Protect critical areas during construction by reducing the velocity of water and redirecting runoff as appropriate;
- Install and maintain erosion control measures during construction;
- Establish vegetation as soon as possible following final grading; and
- Inspect the ROW and maintain erosion control as needed until final stabilization is achieved.

In the event that the Environmental Inspector determines excessive dust conditions resulting from heavy use of dirt roads, Ruby would implement one or more of the following measures to avoid or prevent impacts:

- Use water as a dust suppressant;
- Limit or restrict the use of roads with severe dust conditions, including reducing the speed limit; and
- In most cases, large construction equipment will be confined to the construction ROW and will not be using the access roads.

For more details regarding dust mitigation, please refer to Fugitive Dust Control Plan (Appendix N).

#### **5.1.4 Trenching**

Excavation of the pipeline trench would follow clearing and grading of the ROW. The majority of the excavation would be accomplished using machinery such as ditching machines, backhoes, or rippers. The trench would be excavated to a sufficient depth to provide the minimum depth of cover required by the DOT, allowing for at least 36 inches of cover between the top of the pipe and the final land surface after backfilling. Certified weed-free hay bales or silt fences may be used to contain soil piles and prevent erosion

during construction, as appropriate (refer to the Ruby's Plan, Appendix D, and Noxious and Invasive Weed Control Plan, Appendix H). In addition, no silt-laden water will be allowed to enter wetlands and waterbodies during construction.

Subject to the availability of material in the affected states, Ruby is committed to using certified weed-free hay or straw bales or other suitable material, such as corn husks. In cases where certified weed-free material is not available, Ruby will work with respective agencies, including the BLM and Natural Resource Conservation Service to ensure that other suitable materials are used.

As a requirement of the BLM Kemmerer Field Office Resource Management Plan, Ruby will limit the length of time the trench is open to 10 days unless protective measures, such as safety fences, are installed as it pertains to BLM managed lands in Wyoming. In other areas, Ruby will leave breaks in both the trench and pipe string to allow wildlife passage.

Laying pipe ahead of the ditch is possible in areas where the terrain is relatively flat and where rock is not substantially present. Further, the terrain must be fairly consistent. Ruby has determined that laying ahead of the ditch would be possible along most of the route in Wyoming to comply with the 10-day open ditch requirements and will modify standard construction practices through lands managed by the Kemmerer BLM to ditch following clearing, grading, topsoiling, stringing, welding, non-destructive evaluation (NDE), and joint-coating activities. This method confines the workspace necessary for ditching.

The 10-day open ditch requirement is not found in other Resource Management Plans or Forest Plans along the Project route, nor would Ruby be able to use this construction method along the vast majority of the remainder of the Project route. Pipeline construction is an assembly line process consisting of multiple activities. After ditching, multiple activities take place before the pipe is backfilled including stringing skids, stringing pipe, engineering and bending, laying, welding, X-Ray/NDE, repair welding, coating and jeeping (coating integrity test using special detectors called jeeps), padding the ditch, lowering-in, installation of ditch plugs and test leads, as-built survey, and padding of the pipe. Some areas will need weight bags or other type negative buoyancy installed before backfill, along with trench breakers if it crosses a wetland.

Most activities have a two- to four-day gap between them to allow for any inefficiencies, potential equipment break downs, and associated repairs. Based on this timing, backfill would begin approximately 12 to 36 days after ditching. Additionally, because of the time required for blasting and excavating rock, the ditch is excavated in rock areas several weeks ahead of the main crews. It is Ruby's intention to backfill the pipe as

quickly as possible, but that cannot be done until Ruby ensures that all other safety and DOT requirements are met first.

To minimize impacts of the open trench in agency-identified big game migratory corridors, Ruby would install or leave crossovers every 1,200 feet with exit ramps or would leave an 80-foot section with no ditch dug to be completed as a tie-in. Ruby would also leave crossovers in areas around water sources or active livestock/wildlife trails. At water sources, at a minimum, Ruby would install one crossover on each side of the source if the source is a stream. Crossovers would also be left in place at existing roads or active two-track roads to allow for vehicle crossings. Each crossover would be sloped on each side to act as an escape ramp for any livestock/wildlife that happens to become trapped in the trench. Ruby would also inspect the open ditch line daily to ensure that livestock/wildlife is not trapped in the open trench.

Typically, crossovers and exit ramps for wildlife and livestock would be located to coincide with identified wildlife, wild horses, and livestock crossings, existing roadways, and tie-in locations. Crossovers consist of gaps in the trench, spoil piles, and pre-welded pipe. These crossovers and exit ramps would be installed at intervals not to exceed 2,500 feet (1,200 feet within agency-designated migration corridors).

Any crossing of foreign pipelines would generally require the Ruby pipeline to be buried at greater depths, consistent with applicable DOT regulations. Where practicable, at least 12 inches of clearance would be maintained when crossing foreign pipelines, cables, or other similar structures.

Excess rock and boulders that are too big to place back into the trench will be used to block access to the pipeline ROW. Excessive rock over four feet high will be broken up or removed and disposed of at approved locations. See Appendix I, Biological Resources Conservation Measure Plan for more information on rock and boulder removal.

#### **5.1.5 Lowering-In and Backfilling**

Once the welding operation has been completed, the pipeline would be lowered into the trench. Side boom tractors would be used to lift the pipe, position it over the trench, and lower it into place. The pipeline and trench would be inspected to verify that minimum cover is provided, that the trench is free of rock or debris, that external pipe coating is not damaged, and that the pipe is properly fitted and installed into the trench.

Trench dewatering may be necessary at certain times during the lowering-in process. Any trench dewatering would be accomplished in a manner designed to prevent heavily silt-laden water from flowing into wetlands or waterbodies.

After the pipe is lowered into the trench, the pipeline would be padded and the trench backfilled. Previously excavated materials would be pushed back into the trench using bladed equipment, backhoes, or auger type backfilling machines. Backfill material generally consists of the material excavated from the trench. Padding or other protective coating would be used to prevent damage to the pipe coating. This padding would typically consist of subsoil removed from the trench that has been screened to remove larger rocks. Alternatively, other suitable material from an agency-approved local source (e.g., soil or sand) may be imported to the site from other areas along the ROW. Topsoil would not be used for padding. In agricultural lands and other areas where the topsoil has been segregated, trench subsoil would be placed in the trench first and the topsoil placed on top of the trench subsoil.

#### **5.1.6 Hydrostatic Testing**

Both the mainline and the lateral would be hydrostatically tested before being placed into service to verify their integrity and to ensure their ability to operate at the maximum allowable operating pressure. Hydrostatic test water would be obtained in compliance with both federal and state regulations, as well as existing water rights. Topography and the availability of test water would determine the length of each test segment. Pipeline test segments would be capped and filled with water, then pressurized in accordance with DOT regulations (49 CFR Part 192). Any leaks detected would be repaired and that section of pipeline re-tested.

Upon completion of the test, the water may be pumped to the next segment for testing, or discharged. The test water would ultimately be discharged in accordance with the National Pollutant Discharge Elimination System hydrostatic discharge permit requirements, as administered by the individual states. Only clean pipe would be tested, and no chemicals would be added. Once a pipe segment has been successfully tested and dried, the test cap and manifold would be removed, and that section of the pipe would be connected to the remainder of the tested pipeline. Preliminary locations of test water fill sites and discharge sites have been identified and are provided in the Hydrostatic Testing and Discharge Plan (Appendix C) as identified on Project alignment sheets and topographical maps found in Appendix A to this report. Water would be discharged through energy-dissipating devices (e.g., hay bale filters, sediment bags) where necessary to control erosion and sedimentation (see Appendix A, Attachment B, a typical drawing (Plan 18)). See Hydrostatic Testing and Discharge Plan for more detail (Appendix C).

### 5.1.7 Clean-up and Restoration

After backfilling is complete, disturbed areas would be final graded, and erosion control measures would be implemented. The erosion control measures used would be in accordance with Ruby's Plan and Procedures (Appendices D and F, respectively) and other applicable federal, state, and local agency requirements. Final cleanup typically would involve a series of steps, including off-site waste disposal and equipment removal.

Impacts due to construction of the Project will vary in duration and significance from short-term, to long-term, to permanent. Short-term impacts would achieve pre-construction condition in fewer than five years. Long-term impacts would require 5 to 50 years to be restored to pre-construction conditions. Impacts that will take longer than 50 years to restore, are considered permanent. A restoration and revegetation plan for each state would be implemented to the reasonable satisfaction of the individual landowners or in accordance with applicable federal, state, and local regulations. See Restoration and Revegetation Plans for more detail (Appendix E). Non-cultivated lands would be reseeded within 14 calendar days after final grading, weather permitting, subject to approval of the affected landowner or land management agency (Restoration and Revegetation Plans, Appendix E). If seasonal or weather conditions are not favorable, revegetation will be delayed until favorable conditions exist, again, subject to approval of the affected landowner or land management agency. In the interim, the ROW would be stabilized, including mulching or seeding with a sterile annual grass. The use of mulch or sterile grasses will only occur before seeding perennial plants as necessary to minimize erosion. Revegetation would be accomplished in a manner compatible with preconstruction and adjacent vegetation patterns, in accordance with 18 CFR § 380.15 and FERC guidelines.

Further, a quantitative vegetative monitoring program will document the reclamation progress in the ROW. Ruby would consult with land management agencies regarding the program and location of monitoring plots on their lands. Monitoring plots will be established randomly within different vegetation types along the ROW and control plots on adjacent undisturbed lands for Wyoming, Utah, and Oregon. The monitoring and control plots will be similar in aspect, slope, and soils. Statistical analysis will compare graminoid, forb, and woody plant density and cover between monitoring plot and control plots.

In Nevada, Ruby will establish three to five one-acre monitoring plots within each of the seeding types. Vegetation will be monitored by using a quadrant sampling (1 x 1 meter in size) method to assess species cover and density in the monitoring plots. Refer to Restoration and Revegetation Plan for Nevada for details on monitoring (Appendix E).

Vegetation monitoring will occur for years 1 through 5 and will continue following the fifth year if criteria have not been met but progress toward objectives is being made. For more details, see the Restoration and Revegetation Plans (Appendix E).

Streambeds would be returned to their preconstruction contours, and stream and river banks would be restored and mitigated in kind or to a greater functional quality than their preconstruction condition and re-vegetated in accordance with Ruby's Procedures (Appendix F); also see the Biological Resources Conservation Measure Plan (Appendix I) and the Wetland Restoration Plan in the Wetland Mitigation Plan (Attachment L of Appendix Q). Periodic aerial and ground inspections of the ROW would be conducted, and further restoration measures would be implemented if necessary. Refer to the Restoration and Revegetation Plans (Appendix E) for more detail.

Fences and other existing infrastructure (powerlines, roads, etc.) would also be returned to their pre-construction condition as approved by landowners and/or land management agencies. Additional grazing management within revegetated areas would be implemented as well. The ROW will cross through livestock grazing allotments and wild horse/burro management areas on BLM land. Herbaceous grass growth will attract these grazing animals. Excessive grazing may cause plant establishment efforts to fail. The following management practices for livestock grazing are examples that could be implemented, as appropriate:

- Leave the ROW surface in a roughened condition;
- Include low palatable plant species in the seeding mix such as sagebrush and western yarrow; and
- Negotiate with allotment permittees to limit livestock grazing in the ROW by using options such as herding or placing salt licks and/or protein blocks 100–200 feet away from the ROW, fencing crucial habitat areas, deferring grazing for two to three years, closing pasture, implementing seasonal deferment, and/or reducing stocking preference. Ruby may compensate permittees if reduced stocking preference or pasture closure occurs.

Ruby would work with federal land agencies to limit wild horse and burro grazing along the reclaimed ROW for three years. Possible management actions would include providing water sources away from the ROW. For more detail, refer to Section 5.3.14.

## **5.2 Aboveground Facility Construction Procedures**

Typical construction activities associated with compressor stations are summarized below. General construction activities and storage of construction materials and equipment would be confined to areas within the approved compressor station construction sites. Debris and wastes generated from construction would be disposed

of appropriately, see Waste and Spill Management Specifications (Appendix B) for more detail. Installation of the meter stations would meet the same standards and requirements established for the compressor stations and pipeline construction. All aboveground facilities will be painted with approved paint colors by land management agencies to blend in with surroundings.

**Table 5.2-1 Colors for Aboveground Facilities on BLM land**

<b>County</b>	<b>Color for Compressor Station</b>	<b>Color for all other facilities</b>
Lincoln	Carlsbad Canyon	Covert Green
Uinta	N/A	Covert Green
Box Elder	Carlsbad Canyon/Covert Green	Carlsbad Canyon/.Covert Green
Elko	N/A	Shadow Gray
Humboldt	Carlsbad Canyon	Carlsbad Canyon
Washoe	N/A	Carlsbad Canyon
Lake	N/A	Yuma Green
Klamath	N/A	Carlsbad Canyon

### **5.2.1 Foundations**

Excavation would be performed as necessary to accommodate the reinforced concrete foundations required for the new compressor units. Forms would be set, rebar installed, and the concrete poured and cured in accordance with applicable standards. Concrete pours would be randomly sampled to verify compliance with minimum strength requirements. Backfill would be compacted in place, and excess soil would be used elsewhere or distributed around the site.

### **5.2.2 Compression Equipment**

The compression equipment would typically be shipped to the site by truck after construction commences. The compressors would be offloaded and when ready for installation, positioned on the foundation, leveled, grouted, and secured.

### **5.2.3 Piping**

All pipe connections associated with the new compressors that are not flanged or screwed would be welded. All welders and welding procedures would be qualified in accordance with 49 CFR Part 192, as administered by the DOT. All welds in gas piping systems would be verified by a non-destructive testing method to ensure compliance with code requirements.

### **5.2.4 Hydrostatic Testing**

All components in high-pressure natural gas service would be pressure tested prior to being placed into service. Before being placed in service, all controls and safety equipment and systems, including emergency shutdown, relief valves, gas and fire detection, engine over-speed, and vibration would be checked or tested.

### **5.2.5 Clean-up and Restoration**

Upon completion, temporary disturbances at aboveground facilities would be revegetated as described in the Restoration and Revegetation Plans (Appendix E). Where practical, vegetative screening would be used to limit the visual impact of aboveground facilities, as described in the Visual Resources report (Appendix P).

## **5.3 Special Construction Methods**

Construction across the following features such as roads and railroads, wetlands and waterbodies, residential/commercial/industrial areas, pipelines, and rugged terrain would involve special construction techniques as described below.

### **5.3.1 Foreign Pipelines, Unpaved and Paved Roads, State and Interstate Highways, and Railroad Crossings**

Construction of pipelines across major paved highways, railroads, paved roads, and unpaved roads where traffic cannot be interrupted would be accomplished by boring under the roadbed. Smaller unpaved roads and drives would be crossed by open trenching and then restored to pre-construction or better condition. If an open-cut road requires extensive construction time, provisions would be made for detours or other measures to permit traffic flow during construction. Ruby is proposing to work with landowners to determine the best way to cross privately owned roads. Ruby would also repair road damage caused by construction of the pipeline. As prescribed and directed by the Authorized Officer, Ruby would repair road damage on public land. The pipeline would be buried to the depth required by applicable road crossing permits/approvals and would be designed to withstand anticipated external loadings. Railroad crossings would be installed (typically using a bore) in accordance with the requirements of the railroad.

### **5.3.2 Waterbody and Wetland Crossings**

Wetlands would be crossed following the methods outlined in Ruby's Plan and Procedures (Appendices D and F, respectively). These wetland construction methods are briefly outlined below. During clearing, sediment barriers, such as silt fences or staked straw bales, would be installed and maintained adjacent to all wetlands and within additional temporary workspace areas as necessary to minimize the potential for sediment runoff. Temporary sediment barriers would be installed across the ROW and extra workspaces at the base of slopes adjacent to wetland boundaries.

Ruby would use a 75-foot-wide construction ROW in wetlands, except where a site-specific drawing exists and has been approved by agencies or where wetlands are within actively cultivated or rotated cropland. Where wetlands are located in actively cultivated or rotated cropland, Ruby would use the typical 115-foot-wide ROW. The method of pipeline construction used in the wetland would depend largely on the stability of the soils at the time of construction. Where wetlands are saturated and the trench fills with water, the pipeline segment could be assembled in an upland area and installed using the push-pull or float technique.

Where wetland soils are stable enough to support the pipe, it would be assembled in a manner similar to conventional construction techniques. The amount of time that the excavated ditch is kept open would be minimized, as conditions allow, reducing the effect on wetlands. For wetlands occurring in actively cultivated or rotated cropland, construction would progress using techniques similar to conventional upland cross-country construction.

The construction ROW may be used for access when the wetland soil is firm enough to support equipment or the construction ROW has been appropriately stabilized (e.g., with timber rip-rap, prefabricated equipment mats, or terra mats). In wetlands that cannot be appropriately stabilized, construction equipment other than that needed to install the wetland crossing would use access roads located in upland areas. In areas where no reasonable access exists, construction equipment would be permitted one pass through the wetland using the construction ROW. The top 12 inches of topsoil would be segregated from the trench area, except where standing water is present or soils are saturated or frozen. Segregated topsoil would be immediately restored to its original location after backfilling is complete.

Restoration of wetland contours to pre-construction levels would be accomplished during backfilling. Prior to backfilling, trench breakers would be installed where necessary to prevent the subsurface drainage of water from the wetland. Ruby would monitor and record the success of wetland revegetation annually for a minimum of three years after construction or until wetland revegetation is successful. Ruby's Procedures (Appendix F) include several mitigation measures designed to minimize the overall effects of the Project on wetlands.

#### **5.3.2.1 Conventional Open-Cut Waterbody Crossings**

The open-cut crossing method is proposed for most minor waterbody crossings (a waterbody that is less than or equal to 10 feet in width), as described in Ruby's

Procedures (Appendix F). These crossings would involve excavation of the pipeline trench across the waterbody, installation of the pipeline, and backfilling of the trench with no effort to isolate flow from construction activities.

Excavation and backfilling of the trench would be accomplished using backhoes or other excavation equipment working from the banks of or in the waterbody. Trench spoil would be stored at least 10 feet from the banks (topographic conditions permitting exceptions have been identified on alignment sheets in Appendix A, Attachment A). A section of pipe long enough to span the entire crossing would be fabricated on one bank and either pulled across the bottom to the opposite bank, floated across the stream, or carried into place and submerged into the trench. The trench would then be backfilled and the bottom of the watercourse and banks restored and stabilized. Sediment barriers, such as silt fencing, staked straw bales, or trench plugs, would be installed to prevent spoil and sediment-laden water from entering the waterbody from adjacent upland areas.

#### **5.3.2.2 Dry Waterbody Crossings**

A “dry-ditch” crossing method is appropriate for some minor and intermediate waterbodies (a waterbody that is greater than 10 feet and less than or equal to 100 feet wide). A flumed crossing involves installation of a temporary dam and a flume pipe to divert the entire stream flow over the construction area and allow for trenching of the crossing in dry or nearly dry conditions. Dams would be constructed of sand bags alone, sand bags with plastic sheeting, inflatable bladders, or similar materials to direct the flow into the flume pipe. Spoil removed during the trenching would be stored at least 10 feet away from the water’s edge (topographic conditions permitting). A section of pipe long enough to span the entire crossing would be fabricated on one bank and slipped under the flume pipe to the opposite bank. The trench would be backfilled and the bottom of the watercourse and banks restored and stabilized before the flume pipe and dams are removed. Sediment barriers, such as silt fencing, staked straw bales, or trench plugs would be installed to prevent spoil and sediment-laden water from entering the waterbody from adjacent upland areas.

The dam-and-pump dry-ditch crossing method would involve damming the stream with sandbags or equivalent materials on both sides of the construction work area and pumping the stream flow around the construction zone. Excavation of the trench, installation of the pipeline, and restoration would be similar to that described above for the flumed crossing.

### **5.3.2.3 Horizontal Directional Drill Crossings**

Horizontal directional drill (HDD) is a method by which a pipeline is installed beneath obstacles or sensitive areas. Typically during this process, there is minimal disturbance of the ground surface between the entry and exit points of the HDD. The feasibility and length of pipeline that can be installed by HDD depends upon such factors as access to the entry and exit points, subsurface conditions (geology), and pipe diameter.

An HDD is a multi-stage process, consisting of establishing a small diameter pilot hole along a crossing profile, followed by enlargement of the pilot hole (reaming) to accommodate pullback of the pipeline. The pilot hole is drilled using rotation cutting and/or jetting with a jetting assembly attached to the drill pipe. The cutting action of the drill head is remotely operated to control its orientation and direction. Bentonite drilling fluid (bentonite, a non-toxic, naturally occurring sedimentary clay, is composed of weathered and aged volcanic ash) is delivered to the cutting head through the drill string to provide the hydraulic cutting action, lubricate the drill bit, help stabilize the hole, and remove cutting spoil as the drilling fluid is returned to the entry point. Drilling fluid is also used during the reaming process to remove cutting spoil. The position of the drill string is electronically monitored and directional corrections made as necessary to ensure that the drill string maintains the desired alignment.

Enlarging the pilot hole is an incremental process accomplished with multiple reaming passes, depending on the pipeline diameter and subsurface geology, to increase the hole diameter. Upon successful completion of the reaming operation, a cylinder shaped swab is pulled through the hole to ensure the integrity of the completed hole and prepare for pullback of the pipe. The pre-assembled section of pipeline is then pulled into the completed hole.

Ruby recognizes that HDD is not a fail-safe crossing methodology. As a result, Ruby would evaluate each crossing with the appropriate agencies to develop site-specific crossing methodologies.

The HDD method will be implemented at the Hams Fork River (MP 0.98), Union Pacific Railroad (MP 0.81), and the Bear River crossings (MP 52.9 and MP 113.7).

### **5.3.2.4 Bored Crossings**

Where traffic cannot be interrupted, major highways and railroads would be bored. Some waterbodies may also be bored. Boring involves pushing the pipe through a hole below the waterbody, road, or railroad. A bore pit is dug on one side of the crossing and a receiving pit is dug on the other side of the crossing, and both are then graded so that the bore is at the proper elevation for installation of the pipe. A boring machine is then

lowered to the bottom of the bore pit and placed on supports. The machine cuts a shaft under the crossing using a cutting head mounted on an auger. After the hole is cut, the auger is removed from the bore pipe, a section of permanent pipe is welded to the bore pipe and as the bore pipe is pulled out the permanent pipe is pulled in.

### **5.3.3 Fueling**

All refueling or lubricating of vehicles and/or equipment would occur in areas cleared of vegetation and no closer than 100 feet of a waterbody or wetland (150 feet in Oregon) unless no feasible alternative exists or if a greater setback is stipulated by appropriate permitting agencies.

Exception to the above measure is that no fueling or lubricating may be performed within 500 feet of a waterbody or wetland on lands managed by BLM or within 200 feet of a spring or well unless the refueling is associated with related equipment (e.g. water pump).

### **5.3.4 Noxious and Invasive Weed Control**

Noxious weed surveys were conducted from April through October 2008 and from April through October 2009 to determine occurrence along the Project. The surveys focused on resources within a 300-foot-wide corridor, and other areas outside this corridor, including access roads, extra work spaces, and aboveground facilities. Resulting noxious weed location data collected by Ruby and proposed treatment measures are presented in the Noxious and Invasive Weed Control Plan (Appendix H).

### **5.3.5 Wildfire Control**

Wildfire prevention and suppression measures that would be implemented are described in the Fire Prevention and Suppression Plan (Appendix L).

### **5.3.6 Fish and Wildlife of Concern**

Biological resource protection measures have been developed to minimize impacts to resources during construction. These measures include consultation with BLM, USFS, USFWS, Wyoming Game and Fish Department, Utah Division of Wildlife, Nevada Department of Wildlife, and Oregon Department of Fish and Wildlife.

Sensitive biological resources include habitats and species of wildlife and plants that are considered to be sensitive or of special concern. A number of sensitivity classifications exist; species may be considered sensitive due to inclusion in one or more of the following classifications:

- Federally listed threatened, endangered, or candidate species (ESA);

- Species proposed or petitioned for federal listing under the ESA;
- State's Action Plan Conservation Status Species;
- Species protected by other federal acts, such as the Bald and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act;
- State-listed rare, threatened, or endangered species;
- Other species afforded state protection;
- Plant species included on lists compiled by the Natural Heritage Programs for Oregon, Nevada, Utah, and Wyoming;
- BLM- and USFS-listed sensitive species;

Biological surveys were conducted from April through October 2008 and from April through October 2009 along the Project route. These surveys focused on resources within a 300-foot-wide corridor along the Project ROW, and other areas outside this corridor, including access roads, extra work spaces, aboveground facilities, staging areas, contractor yards, spread breaks, parking areas, Vya Construction Camp, and Lakeview lodging facility. In addition, pre-construction aerial raptor surveys were conducted within a one-mile-wide corridor centered on the Project route during April and May of 2009. Data collected were logged using global positioning system units and then plotted on USGS 1:24,000 scale topographic maps.

Surveys were conducted for the following:

- Habitat types,
- Dominant plant species,
- Noxious weeds,
- Wetlands,
- Streams,
- Sensitive plants,
- Greater sage-grouse,
- Pygmy rabbit,
- Mountain plover,
- Yellow-billed cuckoo,
- Great grey owls,
- Northern goshawk,
- Nesting raptors,
- Nesting birds,
- Burrowing owl,
- Columbia spotted frog,

- Boreal toad,
- Black-footed ferret/prairie dog towns, and
- Ute ladies'-tresses.

Further, pre-construction surveys were completed in 2009 to confirm species presence and define mitigation needs. Surveys completed include:

- Black-footed ferret surveys in Wyoming,
- Ute ladies'-tresses surveys in Wyoming and Utah,
- Mountain plover in Wyoming,
- Pygmy rabbit surveys,
- Aerial raptor surveys,
- Burrowing owls,
- Greater sage-grouse lek sites,
- Sharp tailed-grouse in Utah,
- Yellow-billed cuckoo;
- Columbia spotted frog, and
- Boreal toads in Utah.

Pre-construction surveys to be completed in 2010 before the construction of the ROW include:

- Raptor surveys,
- Migratory bird surveys,
- Burrowing owl surveys,
- Pygmy rabbit surveys,
- Ute ladies'-tresses surveys in Wyoming and Utah,
- Marmots in Nevada,
- Bats at Twelvemile Creek in Oregon and in the Wasatch-Cache Forest in Utah, and
- Black-footed ferrets, if construction starts after surveys have expired, which is August 10, 2010 in Wyoming and August 27, 2010 in Utah.

As additional resources are identified in conjunction with the remaining surveys, additional mitigation measures will be developed to minimize impacts or existing measures will be implemented.

Ruby has developed mitigation measures to reduce the likelihood and magnitude of potential impacts to biological resources due to construction, operation, and maintenance of the Project (Appendix I, Biological Resources Conservation Measure

Plan and Appendix S, Greater Sage-grouse and Pygmy Rabbit Conservation Measure Plan). Where mitigation measures have not been finalized, Ruby is continuing its ongoing coordination with appropriate resource agencies to finalize and gain concurrence on the proposed measures. As mitigation measures developed through these coordination efforts are finalized, Ruby will forward them to the FERC, BLM, USFS, Reclamation, USACE, and state agencies as appropriate for review and approval.

### **5.3.7 Contingency for Unforeseen Conditions**

Any unforeseen problems or issues arising during construction that are not addressed in the POD will be addressed in the form of variance requests. The variance request would be achieved by consultation among designated representatives of Ruby, the construction contractor, biological monitoring contractor, third-party compliance manager for the FERC and BLM, and the appropriate federal or state agencies. One person from each of the above parties would be the designated contact throughout the construction phase. To facilitate this response, a contact list would be developed including both primary and secondary contacts for the federal agencies, state agencies, Ruby, spread contractors, and biological monitors. The contact list would include phone, fax, cell, pager, and email information as appropriate. The list would be provided prior to construction initiation and would be updated via email and regular mail, as required. Resolution of such issues would be achieved by a combination of telephone calls conferences, meetings, and field visits, as necessary. Then the variance request will be submitted by Ruby and reviewed and approved or denied by FERC, the BLM (on all federal land), or the Compliance Manager.

### **5.3.8 Cultural and Paleontological Resource Sites**

The plans for protection of known and unanticipated discoveries of cultural resources and paleontological resources are presented in Appendices J and K, respectively.

### **5.3.9 Areas Requiring Blasting**

Since Ruby would likely encounter subsurface rock that could not be excavated using mechanical means, blasting for ditch excavation may be necessary. In such areas, care would be taken to prevent damage to underground structures or to springs, water wells, or other water sources in accordance with all applicable regulations. Blasting mats or soil cover would be used as necessary to prevent the scattering of loose rock. Any blasting would be conducted during daylight hours and would not begin until occupants of nearby residences, buildings, places of business, or ranchers and farmers had been notified. Ruby would also notify local authorities 24 hours prior to any blasting activities.

Ruby's blasting contractor would develop a Project-specific blasting plan in accordance with industry-accepted standards and any applicable local permit requirements. The Blasting Plan is presented in Appendix M.

#### **5.3.10 Residential Areas**

Currently, there are no residences located within 100 feet of the proposed Project ROW. Should modifications to Ruby's ROW result in the ROW being within 100 feet of any residence, Ruby would implement specialized construction techniques in such areas. During construction, the edge of the work area along any residences would be fenced for safety purposes to a distance of 100 feet on either side of the residence. This would include notifying landowners or land management agency prior to construction and arranging work hours to take landowners' needs into consideration. Dust minimization techniques would be used on site, and all litter and debris would be removed daily from the construction work area. Mature trees and landscaping would be preserved to the extent possible while ensuring the safe operation of construction equipment. Site-specific construction drawings depicting the temporary and permanent ROW and noting special construction techniques would be prepared for residential structures within 50 feet of the construction area.

#### **5.3.11 Dust Control**

Dust control measures that would be implemented are described in the Fugitive Dust Control Plan (Appendix N). Preliminary locations for dust abatement water sites have been identified and are provided in the Fugitive Dust Control Plan (Appendix N). Dust abatement water would be obtained in compliance with both federal and state regulations, as well as existing water rights.

For dust abatement water sources that are not located on the construction ROW, one 200 x 200-foot site per water source is being requested to allow for water trucks to be filled.

#### **5.3.12 Visual Resources Management**

The BLM's general management objectives for public lands provide design standards on projects to protect or enhance the four defined Visual Resource Management (VRM) classes. Key Observation Points (KOPs) to assess the Project's impacts to visual resources were selected according to the 2002 FERC Guidance manual, using BLM Visual Resource Classifications, USFS Scenery Management System, and in consultation with BLM field offices and the USFS. KOPs include, but are not limited to, any location where the Project crosses land with protected visual resources, any land with high levels of viewer sensitivity (such as residential and recreational areas), and the planned locations of aboveground facilities associated with the Project. This

information, including analysis of the results of the visual simulations, was used to develop mitigation measures for the Project that would allow the Project to proceed while still meeting the VRM Class objectives. Measures that would be implemented are described in Appendix P.

### 5.3.13 BLM Concerns

#### 5.3.13.1 Wild Horse and Burros

The Project would cross six herd management areas (HMA) south and west of the Sheldon NWR in Nevada. Two of these HMAs, Warm Springs Canyon and Black Rock Range West, are located in the Winnemucca Field Office management area. The Wall Canyon, Nut Mountain, Bitner, and Massacre Lakes HMAs are located in the Surprise Field Office management area in Washoe County. HMAs are designed by the BLM to protect, manage, and control wild, free-roaming horses and burros on public lands. The Wild Free-Roaming Horses and Burros Act of 1971 (Wild Horse and Burro Act) ensures that healthy herds of wild horses and burros prosper on healthy rangelands under the protection and management of the BLM.

The HMAs that would be affected during construction are located between approximate MP 517 and 560 along the current Ruby Pipeline Route. Based on consultation with the BLM, these herds are still active in the project area (Eckel 2009). Table 5.3.-1 presents herd numbers for each HMA and Appropriate Management Level (AML).

**Table 5.3-1 Herd Numbers by Herd Management Area**

BLM Field Office	HMA	Number	AML
Winnemucca	Warm Springs Canyon	625	105
Winnemucca	Black Rock Range West	400	60
Surprise	Wall Canyon	52	25
Surprise	Nut Mountain	42	55
Surprise	Bitner	38	25
Surprise	Massacre Lakes	156	35
TOTAL			

Source: BLM 2008

HMAs contain important water sources that may be perennial, intermittent, or mechanical. Wild horses and burros access water sources that are located north and south of the route. Access refers to the ability of the horses to travel throughout the HMA unimpeded. Greater access for horses allows movement to areas within the HMA that maximize the availability of forage and sanctuary or the ability to escape areas with human disturbances.

Construction-related noise and activities may affect horses and burros by creating safety hazards and restricting use of water sources along the route. Available forage would be temporarily affected by pipeline construction activities. Additionally, construction access routes could potentially attract and allow for increased off-road traffic, which would also preclude horses and burros from utilizing water sources and threaten their safety. Other impacts from construction could include:

- Loss of movement across habitat,
- Entrapment or endangerment to animals from open trench,
- Disturbance or harassment of animals by workers on site, and
- Risk of injury to animals due to vehicle collision.

#### **5.3.13.3 Conservation Measures**

To minimize impacts to wild horses, Ruby would implement one or more of the following measures:

- Install soft plug or crossovers every 2,500 feet or closer depending on water sources to facilitate wildlife movement (1,200 feet within agency-defined migration corridors);
- Where necessary or if there is indication that wild horses and burros are not crossing at installed soft plugs or crossovers, locate temporary water supplies 0.5 mile out of the construction area if pipeline construction comes within 0.25 mile of an existing water source or if pipeline will impede access to nearby water sources;
- Minimize the time the trench is open to decrease the potential of wild horse and burro entrapment;
- Leave major horse trails across trench intact as long as possible to minimize loss of movement to habitat;
- Be sure to close the fence gaps to restrict movement outside of the HMA;
- Install crossovers at existing fences within grazing allotments;
- Ensure that workers and other site personnel are educated regarding the federal protection of wild horses and burros and are aware of the penalties associated with harassment of wild horses and burros; and
- Post warning signs on access roads in areas known to have wild horses and burros to warn Ruby construction workers and to help minimize the risk of accidental vehicle/animal collisions.

#### **5.3.14 Reclamation Concerns**

##### **5.3.14.1 Water Conveyance Facility Crossings**

The proposed Project would cross Reclamation lands and facilities. These crossings include not only open, withdrawn and fee title lands, but also water conveyance facilities

under Reclamation's jurisdiction. Ruby would restore these water conveyance facilities to their previous condition or better (Restoration and Revegetation Plans, Appendix E). Crossing plans and specifications would require approval from Reclamation's Project Engineer prior to construction of the proposed Project.



## **6 Post-Construction Monitoring and Response**

See the Restoration and Revegetation Plans in Appendix E.



## 7 Pipeline Operation and Maintenance

The Project facilities would be operated, maintained, and inspected in accordance with DOT safety standards, and pursuant to the General Terms and Conditions of Ruby's FERC Gas Tariff. Ruby has integrated the following design features, construction techniques, and operational procedures into its Project that would ensure pipeline facilities meet or exceed required safety standards.

### *Design Features*

- As described above, Ruby's 42-inch pipe would utilize different wall thickness criteria, depending on DOT class location designation and design requirements. Unauthorized vehicle access will not be permitted along the pipeline ROW; however, some maintenance access may be required along portions of the ROW. Ruby would give special design consideration to road crossings, river crossings, fault crossings, and any area with potential for class change in the future that would require heavier wall thickness pipe (i.e., future residential developments).
- The pipe installed by Ruby would be externally coated with a fusion-bonded epoxy coating, or other suitable coating, that is designed to prevent or minimize the potential for corrosion on the pipe. All welds on the pipe would also be similarly coated. Before the pipe is lowered into its trench, it would be visually and mechanically inspected and any defects would be repaired.
- Ruby would also install cathodic protection systems along the entire length of its pipeline in order to minimize corrosion on the pipeline.
- Pig launcher and receiver facilities would be installed to allow Ruby periodically to run internal inspection devices, once the pipeline is in operation.
- Ruby intends to automate all of its mainline block valves, to the extent practicable, to allow remote operation from a control center.

### *Operational Procedures*

- After the Project is placed into service, the pipeline would be inspected periodically from the air and on the ground as required by applicable regulations. These surveillance activities would provide information on possible encroachments and nearby construction activities, erosion, exposed pipe, and any other potential concerns that may affect the safety and operation of the

pipeline. Aerial surveys of the pipeline system would be performed in accordance with the USDOT requirements of 49 CFR Part 192.

- Ruby supports and actively participates in national 811 and state one-call programs. Excavators, including individuals, are required to use the 811 National “One Call” system or call their state one-call center if they plan to excavate near a pipeline or any other buried facility. Farmers are not required to place a “One Call” for their normal farming practices unless they plan to remove significant cover over the top of the pipeline.
- Information about the use of “one-call” and the importance of calling before digging is communicated to contractors and the affected public on a regular basis. However, unauthorized encroachments still do occur. When they do, the first step is to educate the encroaching party about using the one-call center and the potential consequences of not doing so. If an encroaching party is aware of one-call requirements and elects not to use the one-call, a warning letter would be sent to further emphasize Ruby’s request to use the one-call and follow accepted safety practices in the future. If an enforcement agency exists that can help achieve compliance, proper notice would be given to that agency as well. Ruby would also consider seeking appropriate injunction relief from a court of competent jurisdiction to prevent damage to the pipeline and achieve compliance with one-call requirements. If damage to the pipeline occurs, reimbursement for damages along with the imposition of any civil penalties would be pursued. These types of events would be reported through normal internal reporting processes. The events would be evaluated and if additional efforts (patrolling, etc.) are necessary to ensure the safety of the pipeline, they would be performed.
- Once the pipeline is installed, backfilled, cleaned up, and reclaimed, it would be identified by the placement of pipeline markers (round-top bullet posts), identifying the owner of the pipe and a 24-hour telephone number. The pipeline markers would be placed for “line of sight” visibility along the entire pipeline length, except in active agricultural crop locations and in waterbodies, as required by DOT regulation.
- Ruby would install a supervisory control and data acquisition (SCADA) system that would allow it to monitor pipeline flows and pressures at various points along the system. It would also permit remote start and stop capability of the compressor stations and closing of mainline valves (opening a closed mainline valve would probably require local action). While this system is currently being designed, it will most likely utilize some combination of radio, microwave and/or satellite communications to transmit data from the pipeline to Ruby’s current gas control center in Colorado Springs, Colorado.

- The SCADA system would be enhance the safety of the Ruby pipeline since gas control technicians would be able to monitor and react to conditions on the pipeline as needed (gas control technicians are on duty 24 hours a day, 365 days a year). While leak detection via SCADA systems is not a proven technology for gas pipelines, if unexpected pressure changes are noted that indicate the possibility of a leak, the gas controller on duty can either shut in the pipeline block valves upstream and downstream of the apparent leak and/or dispatch field technicians to investigate the pressure change. Reliability is enhanced because Ruby would not be as dependent on technicians being able to travel to remote sites in inclement weather to actuate valves or monitor pipeline operations. Finally, while the SCADA system would not be directly responsible for any of the safety functions, such as overpressure protection (because the last line of defense on safety issues would be local controls and devices), safety would enhanced by the SCADA system because it may allow the gas control technician monitoring the pipeline to detect incipient issues and take actions to avoid problems. For example, if pipeline pressures downstream of a compressor station began to rise rapidly because a customer unexpectedly reduced its natural gas receipts from the pipeline, the gas control technician could slow or stop the upstream compression to control the rising pressure.
- Ruby would utilize the emergency procedures currently contained in its Emergency Operating Procedures Manual. Local contact phone numbers, external contact information, equipment or resources available for mobilization, and any specific procedures to be followed for Ruby would be incorporated into this Manual prior to commencement of pipeline operations.

Ruby would coordinate with appropriate fire, police, and public officials in a variety of ways. Annual communications would include the following information:

- The potential hazards associated with Ruby facilities located in their service area and prevention measures undertaken;
- The types of emergencies that may occur on or near Ruby facilities;
- Purpose of pipeline markers and the information contained on them;
- Pipeline location information and the availability of the National Pipeline Mapping System;
- Recognition of and response to pipeline emergencies; and
- Procedures to contact Ruby for more information.

These communications may involve individual meetings with agency personnel, group meetings, or direct mailings. In addition, Ruby would perform periodic table-top emergency exercises and mock emergency drills with local government, law

enforcement, and emergency response agencies, subject to agency availability and willingness to participate.

Coordination of mutual response is accomplished through the use of the Incident Command System (ICS). This system is utilized by all emergency responders. Ruby personnel are also trained on this system and understand their roles and responsibilities within the ICS structure.

## 8 References

- Bureau of Land Management (BLM). 2008. Nevada Wild Horse and Burro Areas Administered by the Bureau of Land Management.  
[http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning\\_and\\_Renewable\\_Resources/wild\\_horses\\_and\\_burros/pls\\_herd\\_area\\_statistics/2007.Par.94097.File.dat/HAHMA2008statsNV.pdf](http://www.blm.gov/pgdata/etc/medialib/blm/wo/Planning_and_Renewable_Resources/wild_horses_and_burros/pls_herd_area_statistics/2007.Par.94097.File.dat/HAHMA2008statsNV.pdf). Accessed July 2009.
- Eckel, Glenna. July 8, 2009. Personal Communication. Wild Horse and Burro Management Specialist. Bureau of Land Management, Winnemucca, Nevada. Telephone conversation with Jennifer D'Avanzo. Ecology and Environment, Inc. Portland, Oregon.